ADMINISTRATION REPORTS.

OF THE

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FOREST DEPARTMENT

IN THE

BOMBAY PRESIDENCY,

INCLUDING

SIND

FOR THE YEAR 1891-92.

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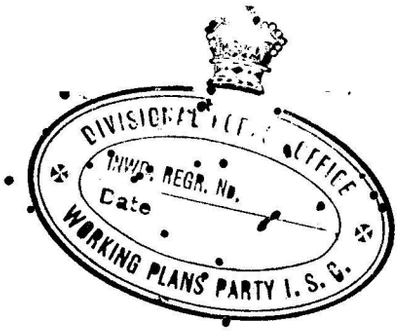

NORTHERN CIRCLE.

No. 4708 of 1892-93.

From

A. T. SHUTTLEWORTH, Esq.,
Conservator of Forests, N. C.;

To

T. D. MACKENZIE, Esq.,
Chief Secretary to Government,
Revenue Department,
Bombay.

Camp Poona Districts, 12th December 1892.

Sir,

I have the honour to submit herewith the Forest Administration Report of the Northern Circle for the official year 1891-92, with its prescribed subsidiary statements.

I have the honour to be,
Sir,
Your most obedient Servant,
A. T. SHUTTLEWORTH,
Conservator of Forests, N. C.

Through the Commissioners, Northern and Central Divisions.

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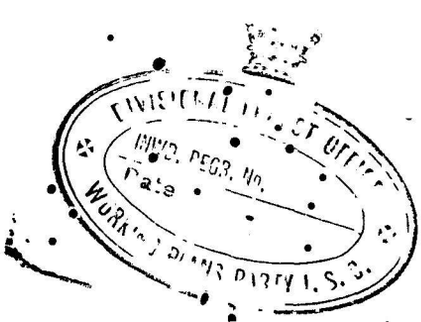

FOREST ADMINISTRATION REPORT.

OF THE

NORTHERN CIRCLE, BOMBAY PRESIDENCY,

FOR THE OFFICIAL YEAR 1891-92.

INTRODUCTION.

The year 1891-92 will be remembered in the history of Forest administration in the Northern Circle by three prominent events, *viz.*:—

(1) the transfer of two forest ranges, comprising the Karjat táluka with its Khálápur petha in the Thána Collectorate of the Northern Circle, to the Kolába Collectorate, and concurrently to the Southern Forest Circle, under orders contained in Government Resolution No. 6561, dated 23rd September 1891, in the Revenue Department, whereby 72 square miles of forest area have been transferred from the Northern Circle to the Southern Circle;

(2) the opening to the grazing of cattle of the closed portions of the Reserved Forests in the Sholápur district and in a portion of the Poona and other Deccan districts, excepting areas of special plantations, owing to a deficient and unseasonable rainfall in the districts above the ghâts having diminished the production of grass and caused a very severe scarcity of fodder grass and the impoverishment of pasturage;

(3) the revenue of the year, notwithstanding the loss of two ranges with their receipts, having been still again the largest on record.

2. Forest reservations have continued to expand: 142 square miles and 515 acres have been added to Reserved Forests, while, on the other hand, 76 square miles and 204 acres, including 64 square miles contained within the Karjat táluka and Khálápur petha, have been deducted from Reserved Forests; and while no additions have been made to Protected Forests, large removals have been made from them, chiefly, however, for transformation into Reserved Forest.

3. The settlement of 29½ square miles of old forest which had been notified under Section 34 of the Forest Act during 1879, and of 287 square miles and 444 acres provisionally notified under Section 4 recently, was effected during the year; and 548 square miles of provisionally notified forest lands were still undergoing settlement under the procedure of Chapter II of the Forest Act at the end of the year.

4. The Privilege Codes of the different Divisions have continued in the *status quo ante*, no new concessions having been granted during the twelve months.

5. 1,453 linear miles of forest boundaries were defined upon the ground by the erection of 29,671 special forest boundary marks at a cost of Rs. 11,805.

6. The Forest Survey and Working Plans Branches respectively maintained the progressive tenor of their courses during the year, making satisfactory shows of work.

7. The sanction of Her Majesty's Secretary of State for India in Council was recorded to the reorganization of the superior staff of the Forest Department, with its broad division into two branches, Imperial Forest Service and Provincial; and the new arrangements were brought into application from the 1st April 1892. The subordinate staff, Protective and Office Establishments, remained as they were, and have undergone no changes.

8. There was a decrease in the number of forest prosecutions taken into the Criminal Courts; but, on the other hand, the number of cases compounded by Forest Officers under Section 67 of the Forest Act was greater in the year of this report than during the preceding year.

9. The number of cattle of different kinds impounded during the year, for trespassing into closed forest reservations, and also for grazing without having taken permits and paid the prescribed fees in open forests, was 339,296 against 302,493 in the year preceding.

10. Fire conservancy shows a slight improvement, the percentage burned being 20 against 21 in the year before.

11. The year was not a satisfactory one for reproduction, natural and artificial, as the rainfall was abnormally short and also unseasonable.

12. The receipts from grass and grazing have continued their chronicled annual augmentation since the great famine year 1877, having increased from Rs. 3,61,984 in 1890-91 to Rs. 4,35,923 in 1891-92.

13. 1,202,372 cattle were provided with pasturage in open forests on payment of fees, and 631,466 cattle have enjoyed free grazing inside the open forests.

14. Another financial success has been recorded, despite the loss of the revenue of two ranges which has gone to the credit of the Southern Circle; for the revenue of 1891-92 is the highest on record. Good forest conservancy together with the exhaustion of former sources of supply of timber and other forest produce from areas outside the State forests, and the penetration of our timber and forest produce into new markets, as well as in greater volume into old centres of trade, have sent up the revenue beyond last year's leap.

15. The following statement shows the names of the superior Forest Officers who have been conducting the administration of the forests during the year, and the stations they have occupied, with other particulars :—

Northern Circle.

Mr. A. T. Shuttleworth, Conservator of Forests, 1st Grade, throughout the year.

No.	Forest Division.	Name of officer.	Rank.	Designation.	From	To	Remarks
1	North Thána ...	Mr. F. Gleadow ...	Deputy Conservator of Forests, 4th Grade.	Divisional Forest Officer.	1st April 1891 ...	15th May 1891.	
		,, G. P. Millett ...	Assistant Conservator of Forests, 1st Grade.	Do. ...	16th May 1891 ...	16th Nov. 1891.	
		,, L. S. Osmaston...	Assistant Conservator of Forests, 2nd Grade.	Do. ...	17th Nov. 1891 ...	18th Dec. 1891.	
		,, G. P. Millett ...	Assistant Conservator of Forests, 1st Grade.	Do. ...	19th Dec. 1891 ...	31st March 1892.	
		,, A. C. Robinson...	Acting Sub-Assistant Conservator, 3rd Grade	North Sub.-Divisional Officer.	1st April 1891 ...	18th Feb. 1892.	
		,, J. Baptista ...	Sub. *pro-tem.* Sub-Assistant Conservator, 3rd Grade.	Do. ...	19th Feb. 1892 ...	31st March 1892.	
		,, J. Baptista ...	Do. do.	South Sub.-Divisional Officer.	1st April 1891 ...	18th Feb. 1892.	
		,, A. C. Robinson...	Acting Sub-Assistant Conservator, 3rd Grade.	Do. ...	19th Feb. 1892 ...	31st March 1892.	
2	South Thána ...	Mr. G. P. Millett ...	Assistant Conservator of Forests, 1st Grade.	Divisional Forest Officer.	1st April 1891 ...	16th Dec. 1891.	
		,, L. S. Osmaston...	Do. 2nd Grade.	Do. ...	17th Dec. 1891 ...	31st March 1892.	
		,, J. H. Clabby ...	Sub-Assistant Conservator of Forests, 3rd Grade.	North Sub.-Divisional Officer.	1st April 1891 ...	9th Nov. 1891.	
		,, L. S. Osmaston...	Assistant Conservator, of Forests, 2nd Grade.	Do. ...	10th Nov. 1891 ...	18th do.	
		,, G. P. Millett ...	Do. 1st Grade.	Do. ...	19th do. ...	26th do.	
		,, K. B. Phadke ...	Acting Sub-Assistant Conservator of Forests, 3rd Grade.	Do. ...	27th do. ...	17th Dec. 1891.	
		,, A. N. Master ...	Do. do.	Do. ...	18th Dec. 1891 ...	31st March 1892.	
		,, L. S. Osmaston...	Assistant Conservator of Forests, 2nd Grade.	South Sub.-Divisional Officer.	1st April 1891 ...	18th Nov. 1891.	
		,, G. P. Millett ...	Do. 1st Grade.	Do. ...	19th Nov. 1891 ...	26th do.	
		,, K. B. Phadke ...	Sub-Assistant Conservator of Forests, 3rd Grade.	Do. ...	27th do. ...	2nd Jan. 1892.	
		,, W. F. D. Fisher.	Assistant Conservator of Forests, 3rd Grade.	Do. ...	3rd Jan. 1892 ...	31st March 1892.	
3	East Khándesh ...	Mr. F. R. Desai ...	Deputy Conservator of Forests, 1st Grade.	Divisional Forest Officer.	1st April 1891 ...	Do.	
4	West Khándesh.	Mr. R. S. Fagan ...	Do. 4th Grade.	Do. ...	Do. ...	1st July 1891.	
		,, F. R. Desai ...	Do. 1st Grade.	Do. ...	2nd July 1891 ...	13th Nov. 1891.	
		,, E. G. Oliver ...	Assistant Conservator of Forests, 2nd Grade.	Do. ...	14th Nov. 1891 ...	31st March 1892.	
		,, G. S. Hinge ...	Sub. *pro-tem.* Sub-Assistant Conservator of Forests, 3rd Grade.	Sub.-Divl. Officer.	1st April 1891 ...	Do.	
5	Násik	Mr. W. G. Betham ...	Deputy Conservator of Forests, 2nd Grade.	Divisional Forest Officer.	Do. ...	Do.	
		,, W. A. Wallinger.	Sub-Assistant Conservator of Forests, 3rd Grade.	Sub.-Divl. Officer.	Do. ...	7th August 1891.	
		,, K. B. Phadke ...	Acting Sub-Assistant Conservator of Forests, 3rd Grade.	Do. ...	8th August 1891.	16th Nov. 1891.	
		,, W. A. Wallinger.	Sub-Assistant Conservator of Forests, 3rd Grade.	Do. ...	17th Nov. 1891 ...	31st March 1892.	
6	Ahmednagar ...	Mr. A. D. Wilkins ...	Deputy Conservator of Forests, 4th Grade.	Divisional Forest Officer.	1st April 1891 ...	Do.	
7	Poona	Mr. R. C. Wroughton.	Do. 1st Grade.	Do. ...	Do. ...	15th May 1891.	
		,, F. Gleadow ...	Do. 4th Grade.	Do. ...	16th May 1891 ...	17th August 1891.	
		,, R. C. Wroughton.	Do. 1st Grade.	Do. ...	18th August 1891.	31st March 1892.	
		,, W. R. Gaunde ...	Sub-Assistant Conservator of Forests, 2nd Grade.	Sub.-Divl. Officer.	1st April 1891 ..	Do.	
8	Sátára	Mr. C. Greatheed ...	Deputy Conservator of Forests, 3rd Grade.	Divisional Forest Officer.	Do. ...	24th June 1891.	
		,, G. D. Pause, C. S.	Assistant Collector ...	Do. ...	25th June 1891 ...	3rd July 1891.	
		,, R. S. Fagan ...	Deputy Conservator of Forests, 4th Grade.	Do. ...	4th July 1891 ...	31st March 1892.	
		,, L. D. Joshi ...	Sub-Assistant Conservator of Forests, 1st Grade.	Sub.-Divl. Officer.	1st April 1891 ...	Do.	
9	Sholápur	Mr. S. Hornidge ...	Assistant Conservator of Forests, 1st Grade.	Divisional Forest Officer.	Do. ...	Do.	
10	Surat	Mr. R. H. Madan ...	Acting Assistant Conservator of Forests, 3rd Grade.	Do. ...	Do. ...	Do.	
		,, K. B. Phadke ...	Acting Sub-Assistant Conservator of Forests, 3rd Grade.	Sub.-Divl. Officer.	1st Feb. 1892 ...	31st March 1892.	
11	Panch Mahals ...	Mr. H. W. Keys ...	Deputy Conservator of Forests, 4th Grade.	Divisional Forest Officer.	1st April 1891 ...	11th August 1891.	
		,, W. A. Wallinger.	Sub-Assistant Conservator of Forests, 3rd Grade.	Do. ...	12th August 1891.	10th Nov. 189 .	
		,, H. W. Keys ...	Deputy Conservator of Forests, 4th Grade.	Do. ...	11th Nov. 1891 ...	31st March 1892	
12	Working Plans ...	Mr. T. B. Fry ...	Do. 3rd Grade.	Do. ...	1st April 1891 ...	Do.	

CHAPTER I.

AREA AND BOUNDARIES.

1.—AREA.

16. Specially appointed Forest Demarcation and Settlement Officers were employed in the Thána, Khándesh and Ahmednagar Collectorates, and in the leased Dángs during the year, while the Demarcation and Settlement Offices in the Násik, Poona, Sátára, Sholápur, Surat and Panch Maháls Collectorates were in charge of Assistant or Deputy Collectors in addition to their own revenue and magisterial offices and duties. The officers were engaged upon,—

(*a*) the selection of forest lands or waste land, the property of Government or over which Government have proprietary rights: or to the whole or any part of the forest produce to which Government are entitled, in view to their constitution as Reserved or Protected Forests, according to the circumstances and conditions affecting them in parts of the country where forest reservations had still to be made;

(*b*) the acquirement by purchase, or otherwise, of occupied lands included within projects of forest reservation, which have already been approved and sanctioned by Government;

(*c*) the sifting of old forest reservations, in view of the exclusion and disforestation of such portions of them as experience has shown to be unsuitable for continued retention under forest conservancy arrangements;

(*d*) the settlement under the prescriptions of Chapter II of the Forest Act of such lands as have been provisionally notified under Section 4 of that Act, and the undertaking of enquiries into the nature and extent of the rights of Government and of private persons, in or over forest land or waste land to which the provisions of Chapter IV of the Forest Act of Protected Forests are proposed to be applied by notification to issue under Section 28, and the recording of their results;

(*e*) the compilation of records appertaining to the constitution of Reserved and Protected Forests, such as forest registers and maps, showing the location and the boundaries of all legally constituted forest reservations.

17. The changes which have affected the forest areas in the Northern Circle during the year are exhibited in the following statement:—

1	2	3				4				5				6				7				8
No.	Division.	Area on 1st April 1891 according to last year's figures.				Area on 1st April 1891 after rectification of errors in book entries had been made.				Added during the year.				Disforested during the year.				Area on 31st March 1892.				Remarks.
		Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.		
		Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	
1	North Thána ...	371	599	329	542	371	599	329	542	37	220	...	...	3	409	55	568	405	416	273	614	
2	South Thána ...	325	417	335	405	325	572	335	250	...	...	...	...	64	7	7	478	261	565	327	412	
3	East Khándesh ...	791	299	17	545	791	299	17	545	...	17	...	...	...	181	17	545	791	135	...	...	
4	West Khándesh..	1,092	625	184	124	1,092	625	184	124	9	510	...	...	...	...	6	329	1,102	495	177	435	
5	Násik	1,192	306	...	...	1,192	306	...	...	86	347	...	...	...	64	...	...	1,278	579	...	...	
6	Ahmednagar ...	831	432	11	297	831	432	11	297	2	114	...	...	...	...	...	...	833	546	11	297	
7	Poona	743	237	...	...	743	251	...	...	...	60	...	...	...	89	...	...	743	222	...	...	
8	Sátára	686	67	1	8	686	69	1	8	5	604	...	...	7	468	...	...	684	205	1	8	
9	Sholápur	276	592	...	...	276	592	...	...	...	391	...	...	...	...	...	...	277	343	...	...	
10	Surat	68	145	...	...	68	145	...	...	...	8	...	...	...	...	...	...	68	153	...	...	
11	Dángs	678	320	...	...	678	320	...	...	...	...	...	...	...	...	...	...	678	320	...	...	
12	Kaira	...	39	...	...	...	39	...	...	...	...	...	...	...	...	...	...	...	39	...	...	
13	Panch Maháls ...	197	578	114	450	197	578	114	450	...	3	...	...	...	265	114	450	197	316	...	...	
14	Ahmedabad ..	33	442	...	...	33	441	...	...	...	...	...	...	...	...	...	...	33	441	...	...	
	Total ...	7,290	618	994	451	7,291	148	994	296	142	344	...	...	76	203	202	450	7,357	289	791	486	

18. The year commenced with 7,290 square miles and 618 acres of Reserved, and 994 square miles and 451 acres of Protected Forests. By corrections of errors in the forest registers a net gain of 170 acres has accrued to the total of Reserved Forests, but on the other hand a reduction of 155 acres has occurred

upon the figures of Protected Forests; these corrections are distributed as under:—

No.	Division.	Reserved Forest.	Protected Forest.
		Acres.	Acres.
1	South Thána	+155	—155
2	Poona	+14	.....
3	Sátára	+2	.....
4	Ahmedabad	—1	.....

Thus the corrected area of Reserved Forests on 1st April 1891 was 7,291 square miles and 148 acres, and of Protected Forests 994 square miles and 296 acres as shown in column 4 of the statement.

19. One-hundred and forty-two square miles and 344 acres have been added to the Reserved Forests by notifications published under Section 19 of the Forest Act, but no increase has been made in any district to the Protected Forests. The additions which have been made to the Reserved Forests are distributed thus:—

(1) In the Bassein range 30 acres, and in the Váda range 37 square miles and 190 acres; in North Thána division.

(2) In the Chopda range of East Khándesh division 17 acres.

(3) In the West Khándesh division 6 square miles and 465 acres in the Taloda range, 2 square miles and 70 acres in Nandurbár range, and 615 acres in the Shirpur range.

(4) In the Násik Collectorate 86 square miles and 337 acres were notified as Reserved Forest in the Dindori range on 13th May 1891.

(5) In the Ahmednagar Collectorate—

	Sq. m.	a.	g.
Nagar range	0	21	25
Párner range	0	18	21
Jámkhed range	1	334	39
Shevgaon range	0	119	13
Ráhuri range	0	139	26
Kopargaon range	0	13	24
Sangamner range	0	15	20
Akola range	0	90	37½

(6) In the Poona Collectorate—

	A.	g.
Indápur range	38	16
Haveli range	22	2

(7) In the Sátára division—

	Sq. m.	a.	g.
Jávli range	0	17	8
Khatáv range	5	487	5
Mán range	0	99	33

(8) In the Sholápur Collectorate—

	A.	g.
Sholápur range	138	24
Mádha range	30	37
Karmála range	138	0
Pandharpur range	15	20
Sángola range	55	7
Málsiras range	13	0

(9) In the Surat division 8 acres and 11 gunthás in the Párdi range.

(10) In the Panch Maháls district 3 acres were added in the Hálol range.

20. The statement shows 76 square miles and 203 acres of Reserved Forests, and 202 square miles and 450 acres of Protected Forests, to have been disforested during the year; and these figures are explained as under :—

(1) In the North Thána division 27 gunthas were excluded from the Protected Forest in the Máhim range, as the land was required for use by villagers, and was not suitable for forest conservancy; and in the Váda range 3 square miles, 408 acres and 28½ gunthas of the old Reserved Forest which had been gazetted in March 1879, were disforested under the demarcation scheme, the lands being outside the projected forest boundaries: while from Protected Forests 55 square miles, 567 acres and 30 gunthas were excluded, but of this portion no less than 35 square miles, 136 acres and 37¼ gunthas have been converted into Reserved Forest, so that the actual removals from forest covservancy were limited to 20 square miles, 430 acres and 22¾ gunthas, some of the lands being required for cultivation, and all of it being outside the requirements of forest protection.

(2) In the South Thána division the transfer to the Southern Circle of the Karjat táluka with the Khálápur petha has caused 64 square miles and 7 acres of Reserved, and 7 square miles and 478 acres of Protected Forests, to be entered in column "Disforested," but the disforestation of all this area has not actually occurred: the greater portion of it has merely been transferred from the forest registers of the Northern Circle to those of the Southern Circle; however, 4 square miles, 297 acres and 32¼ gunthas have been entirely removed from the forest reservation in the Karjat táluka, and were done so before this subdivision went over to the Southern Circle.

The Karjat táluka with the Khálápur petha contains an area of 353 square miles, and a population of about 230 to the square mile. It is a rough hilly tract of country, including a considerable stretch of the western slopes of the Sahyádri mountains, which are crossed by the Borghát Road and by the G. I. P. Railway; and the hill sanitarium Mátherán, with its forest-clad plateau 1,500 feet above the sea, and all its wooded eastern slopes. It is divided for purposes of forest administration into two ranges, each corresponding with a revenue subdivision; the forest reservations maintained in which are distributed as under :—

	Reserved.		Protected.	
	Sq. m.	acres.	Sq. m.	acres.
1 Karjat	43	554	5	24
2 Khálápur	31	416	0	628

Seeing that the G. I. P. Railway between Bombay and Poona traverses the Karjat range north and south, with 4 stations within its limits, and that there is a branch line from Karjat by way of Palasdari to Cámpoli in the petha, and that the old Bombay and Poona trunk road passes through Khálápur, climbing the Bor Ghat from Cámpoli, the export trade in timber and other forest produce to supply the demands of the Bombay market on the one side, and the above-ghát markets in the Poona district on the other, is considerable, giving a high commercial value to the forests, which, however, acquire much higher importance from the facts—

(*a*) that they safeguard the sources of the Ulhas river and of its main tributaries, the Dhavri, Chilar and Posri, and numerous smaller feeders; and also of the Pátálganga river; protecting their drainage slopes; both these rivers empty into the harbour of Bombay;

(*b*) that they maintain the agricultural prosperity of a considerable spread of cultivable land in the valleys below them, over 30,000 acres of which are devoted to rice crops, and 45,000 acres to dry crop, by impounding a rainfall of more than 100 inches in the year, and controlling its off-flow down the steep sides of lofty mountains.

(3) East Khándesh Division—

	Reserved Forest.		Protected Forest.	
	Sq. m.	a.	Sq. m.	a.
Jámner range	0	181	0	0
Sávda range	0	0	2	184
Chopda range	0	0	15	361

(4) In the West Khándesh division 6 square miles and 329 acres were excluded from the Protected Forest area in the Shirpur range.

(5) Two hundred and sixty-four acres were disforested in the Godhra range and 1 acre in the Hálol range of the Panch Maháls division-but in the Dohad range 72 square miles and 458 acres, and in the Jhálod range 41 square miles and 632 acres, have been removed from Protected Forests for conversion into Reserved; but their final notification under Section 19 of the Forest Act did not occur during the year.

21. At the close of the year the forest reservations legally constituted under the Forest Act represent the following areas in the Northern Circle :—

	Sq. m.	a.
Reserved Forest	7,357	289
Protected Forest	791	486
Total ...	8,149	135

giving an increase of 66 square miles and 311 acres in Reserved Forest, but on the other hand a reduction of 202 square miles and 605 acres in Protected forest; the net decrease in total area of forest reservations, therefore, has amounted to 136 square miles and 294 acres.

2.—FOREST SETTLEMENTS.

22. Forest demarcation, meaning the selection of lands for forest reservations, has been completed in almost all the Collectorates of the Northern Circle, as will be seen from this statement:—

No.	Collectorate.	Number of Tálukas.	Number of Ta'lukas			Remarks.
			In which demarcation has been completed and sanctioned.	In which demarcation is incomplete.	In which demarcation is not undertaken.	
1	Thána	10	6	(*a*) 2	*2	* Murbád and part of Sháhápur range.
2	Khándesh ...	16	12	(*b*) 4	...	
3	Násik	12	12	...	...	
4	Ahmednagar ...	11	11	...	...	(*a*) Máhim and Dáhánu.
5	Poona	8	8	...	...	(*b*) Taloda, Nandurbár, Pimpalner and Sindkheda.
6	Sátára	11	11	...	...	
7	Sholápur ...	7	7	...	...	
8	Surat, not including the Dángs.	8	5	...	†3	† There are no forests in these tálukas.
9	Panch Maháls ...	3	3	...	...	
10	Ahmedábad ...	7	1	...	‡6	‡ Do. do.
	Total ...	93	76	6	11	

23. In the tálukas wherein the selection of lands for forest reservation has been completed and sanctioned, there still remain to be acquired occupied lands which are contained within the determined forest boundaries of the future, in order to complete the final separation between forests and cultivation, which the approved forest conservancy schemes provide. Most of these lands are held

for cultivation, and the work of acquiring them by payment of compensation, or by giving other lands in exchange, is progressing; 1,762 acres were acquired in the several divisions of the Northern Circle during the year by payment of Rs. 20,835 in compensation as under:—

No.	Division.	Area acquired		Amount of Compensation paid.	Average Rate per Acre.
		By Exchange.	By Purchase.		
		A. g.	A. g.	Rs. a. p.	Rs. a. p.
1	North Thána	...	...	.....	.....
2	South Thána	...	0 9	12 0 0	53 5 4
3	East Khándesh	...	1,120 1	4,797 15 1	4 4 0
4	West Khándesh	...	...	.....	.....
5	Násik	...	45 16	120 0 0	2 8 0
6	Ahmednagar	178 8	158 32	688 5 4	4 4 0
7	Poona	481 38	71 13	11,759 1 1	165 8 0
8	Sátára	...	43 11	64 4 0	1 8 0
9	Sholápur	63 23	87 2	*851 1 6	9 12 0
10	Surat	...	18 22	1,869 0 0	103 12 0
11	Panch Mahála...	...	217 15	672 15 10	3 0 0
	Total ...	723 29	1,762 1	20,834 10 10	

*Includes Rs. 6-1-6 for registration charges.

(*a*) In the East Khándesh division the lands acquired by purchase are in three ranges, thus :—

Ranges.	Area.	Amount paid.
	A. g.	Rs. a. p.
Erandol	349 6	634 9 11
Jámner	656 15	3,633 12 2
Páchora	114 20	529 9 0

(*b*) In the Násik division one holding of 15 acres and 16 gunthas in the village of Jaidara in the Yeola range was purchased for Rs. 120.

(*c*) In the Ahmednagar district the lands obtained on compensation are as under:—

Ranges.	Area.	Compensation.
	A. g.	Rs. a. p.
Párner...	3 0	10 0 0
Nevása	42 11	75 0 0
Ráhuri...	31 5	60 0 0
Sangamner	12 35	333 5 4
Akola	69 21	210 0 0

(*d*) The area, 71 acres and 13 gunthas, acquired in the Poona division at a cost of Rs 11,759-1-1, is comparatively costly, but these lands are covered with teak trees, some of which were the property of Government and some of the occupant, and they are situated in the centre of a Reserved Forest at Dháyari in the Haveli range, and the occupant was unwilling to dispose of them, and they were acquired under the Land Acquisition Act, 1870, and therefore the compensation was higher than is ordinarily paid.

(*e*) In the Sátára division all the land acquired was in the Pátan range in four villages and consisted of five survey numbers, representing 43 acres 11 gunthas, for which Rs. 64-4-0 had to be given.

(*f*) The lands purchased in the Sholápur division are as below :—

Ranges.	Area,		Amount paid.		
	A.	g.	Rs.	a.	p.
Karmála	32	28	425	0	0
Mádha	48	22	300	0	0
Sángola	5	32	120	0	0

(*g*) In the Surat division Rs. 1,869 were paid for the purchase of 18 acres and 22 gunthas of land, of which 10 acres and 11 gunthas were acquired for the purpose of a timber depôt at Wágrech, near a bandar on the Ambika river, and near the Bilimora Station on the B. B. & C. I. Railway, at a cost of Rs. 1,455, to which timber from the Dángs' forests is brought for sale, the remainder of the land—8 acres and 11 gunthas—for which Rs. 414 were paid, being at Goema inside a Reserved Forest in the Párdi táluka.

(*h*) In the Panch Maháls division 214 acres and 23 gunthas were purchased in the Godhra táluka for Rs. 652-3-9, and 2 acres and 32 gunthas in the Hálol range for Rs. 12-1-0.

24. In addition to the Reserved and Protected Forests already finally constituted under the Forest Act, considerable tracts of forest lands and of waste lands, the property of Government spreading over 548 square miles and 297 acres in seven districts, some of which, 132 square miles and 37 acres, have been selected both during the year, and some, 416 square miles and 216 acres, during past years, for forest reservation, and have in this view been provisionally notified under Section 4, were still undergoing settlement at the close of the year. The following statement shows the distribution of these provisionally notified and unsettled forest lands at the close of the year, in the different Collectorates of the Northern Circle:—

No.	Collectorate.	Section 4.		Section 26.		Total.	
		Sq. m.	Acs.	Sq. m.	Acs.	Sq. m.	Acs.
1	Thána	3	279	.....		3	279
2	Khándesh	166	423	260	493	427	276
3	Násik	.....		.....		.....	
4	Ahmednagar	0	521	.....		0	521
5	Poona	1	263	.....		1	263
6	Sátára	0	71	.....		0	71
7	Sholápur	0	93	.....		0	93
8	Surat	.....		.....		.....	
9	Panch Maháls	115	74	.....		115	74
	Total ...	287	444	260	493	548	297

25. The settlement under the provisions of the Forest Act of old forest areas which had been gazetted under Section 34 of that Act in the month of March 1879, has been completed in the greater number of the divisions of the Northern Circle, but much still remains to be undertaken in the Thána Collectorate; and the following statement shows the progress made during the year and what still remains to be accomplished. In North Thána the Máhim, Dáhánu and Umbargaon ranges have still to be settled, and in South Thána the Murbád and Sháhápur ranges. Six hundred and seventy-eight square miles are shown against the Surat division, but this represents the territorial area of the Dángs, which are leased by Government for forest conservancy, and should apparently be expunged from the statement, for the reason that although the entire area of the Dángs was gazetted as Reserved Forest under notification No. 26 F., dated 1st March 1879, published under Section 34 of the Forest Act, it has been ruled subsequently that the Forest Act does not apply to the Dángs.

No.	Name of Division and class of Forest.	At the commencement of the year: areas under Section 34 in which private rights have not been inquired into, settled and recorded.	Areas settled during the year.		Areas of Reserved Forests alienated under Section 26.	Areas of Protected Forests disforested under Government orders.	At the end of the year: areas under Section 34 in which private rights have not been inquired into, settled and recorded.	Remarks.
			Chapter II of the Forest Act.	Chapter IV of the Forest Act.				
		Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	
1	North Thána ... { Reserved ...	35	2	...	...	...	33	
	Protected ..	237	...	18½	...	...	218½	
2	South Thána ... { Reserved ...	98	...	...	...	...	98	
	Protected ...	323	...	...	...	...	323	
3	Poona ... ... { Reserved ...	9	9	...	...	...	...	
	Protected ...	...	...	...	...	....	...	
4	Surat ... ... { Reserved ...	678	...	...	...	...	678	
	Protected ...	...	...	...	...	...	...	
	Total ...	1,380	11	18½	...	...	1,350½	

Settlement Officers' Proceedings during the year.

Thána Collectorate.

26. The office of the Forest Settlement Officer, Thána, was in charge of the Collector from 1st April to 17th June 1891, consequent to Mr. Owen having proceeded to Europe on sick leave; but Mr. McIver, Assistant Superintendent, Revenue Survey, was appointed Forest Settlement and Demarcation Officer for the Thána Collectorate under orders contained in Government Resolution No. 3962, dated 10th June 1891, and received charge of the office from the Collector on the 18th July 1891, which he retained to the close of the year. The Collector had of course been unable to afford any time to the out-door duties of the office, and had only kept the desk work going.

During the rainy season :—

(1) All the village maps of the Dáhánu táluka and Umbargaon petha were mounted in readiness for field demarcations.

(2) Detailed lists of forest lands in the Dáhánu táluka and Umbargaon petha were prepared.

(3) Topographical sheets of the Dáhánu táluka and its petha were mounted and colored, to illustrate the proposals of the Forest Department.

(4) Forest registers (Form No. II *a*) were prepared for the Váda táluka, and also forest registers for the Kalyán táluka.

(5) A large scale táluka map to illustrate the demarcated forests of the Karjat táluka (which no longer belongs to the Northern Circle) was traced and colored.

(6) Complete lists were prepared of all the maps in the office.

Mr. J. H. Clabby, Sub-Assistant Conservator of Forests, was appointed Assistant Demarcation Officer, Thána, under Government Resolution No. 7049, dated 14th October 1891, and joined Mr. McIver on the 10th November 1891. In the month of November and during the first half of December Mr. McIver visited the Kalyán and Bhiwndi tálukas, completing the settlement work of six villages which remained to be finished; and during the latter part of December he commenced the demarcation and settlement of the Dáhánu táluka. Maps and statements showing Mr. Owen's proposals for the demarcation of the Máhim táluka were furnished in January to the Divisional Forest Officer, North Thána, with a view to his personal inspection and criticisms of the project.

Negotiations were carried on with fair success for the acquisition of occupied lands contained within sanctioned forest reservations in different tálukas; and up to the end of March the settlement and the demarcation of forests in 12 and 19 villages, respectively, in the Dáhánu táluka were completed. The settlement of boundary disputes, which had appeared between the Jawhár territory and forests within the Thána Collectorate, was also taken in hand, and two out of nine such disputes in the Dáhánu táluka were inquired into and settled before the close of the year. Mr. McIver was very considerably retarded in his operations by sickness in his camp in January; all but one of the Surveyors in the field establishment suffered from jungle fever of a severe type, so that three of them were incapacitated for all work from the middle of January to the end of the season, and one of these men, Antaji Martand, died of fever on the 26th March.

27. Government in their Resolution No. 7389, dated 27th October 1891, in the Revenue Department, issued orders sanctioning the final forest demarcation project and the forest settlement of the Váda táluka completed by Mr. Owen, of which mention is made in paragraph 33 of last year's administration report.

The Váda taluka contains an area of 309 square miles, of which about 42 are in alienated villages, and a population of 36,497 or 188 to the square mile; it is a very hilly tract of country, and is at some distance from the sea coast as well as from the Shayádri mountains of the Western Ghát; its eastern boundary, however, ascends to the Mokháda plateau, reaching a height of 1,500 feet above sea level; it has no railway passing through any portion of it, but it lies between the B. B. & C. I. line on the west, and the G. I. P. Railway on the east; it possesses no tidal creeks, but Manor bandar, the most important bandar of timber export in the district, is only a short distance beyond its frontier on the Vaitarna river, which is subject to tidal influence, soon after leaving the Váda táluka; a made-road is being completed which passes through the táluka north and south, and will open its forests out to markets in the Násik district above the ghát, while at the same time, it facilitates export of timber and other forest produce to markets and bandars in the south; a made-road under construction to Manor bandar, passing through the centre of the táluka east and west, will serve, in a high degree, the timber traffic towards the coast; and there are numerous fair weather cart roads leading out of the táluka by every valley on its east, south and west sides, along which strings of carts are to be seen from November to the rains, conveying the exploitable produce of the Váda forests to the railways, and to water carriage, as well as for local supply. The timber growth in the forest lands of the Váda táluka is very fair in size and quality, and is dense in most parts; the inaccessibility of the táluka and the difficulties of transport having protected its trees against such depletion as has occurred in other portions of the Thána district. Selections of areas for forest reservation have been made at different times since 1865 by Revenue Survey, Revenue and Forest Officers, so that in 1878, when the Forest Act came into existence, there were under the immediate management of the Forest Department:—

	Acres.	g.
First class Reserves	50,252	16
Second do.	12,262	24
Other forest lands	14,371	35

and in March 1879, when the total cultivation in the táluka including alienated villages was spread over 55,641 acres, with a rent roll of Rs. 54,587, there were gazetted under Section 34 of the Forest Act, as being under forest conservancy administration at the time, the following areas:—

	Acres.	g.
Of Reserved Forest	54,560	22
„ Protected Forest	35,685	20
Total ...	90,246	2

These included all the forest lands and waste lands covered with trees which are the property of Government; but much of this land, of that gazetted as Protected Forests especially, is not suitable for permanent retention under forest con-

servancy; and in Mr. Owen's final project, which has been approved and sanctioned, the Reserved Forests comprising the entire forest reservations in the Váda táluka are reduced to, and fixed at, 78,788 acres and 25 gunthás, equal to 46·2 per cent. of the territorial area of the Váda táluka, excluding the alienated villages. All the permanent land marks which stand out in such bold and conspicuous relief in the landscape form the centres of forest reservations; for example, the fortified solitary hill of Kohoj, which rises straight up from the plains to a height of 1,906 feet above the sea, crowned with two remarkable knobs of trap rock, and which is noticeable from miles round, with its buttressed base covered with trees; the Davja hill in the south, very steep below and sloping above with its two spurs looking like a three-peaked hill; the Kapri hills in the east, the Sudgaon hills in the north-west and the Ikna and Dhomkávla hills in the south-east, distinguish the sites of forest preserves which would give a perfect scientific protection of catchments and drainage slopes, if alienated lands in Government villages, and alienated villages *en bloc*, did not intrude with their hideously barbarous shaven and disforested slopes in the green sea of a promising timber wealth, the property of the State. The forest boundaries have been located by Mr. Owen, wherever it was possible for him to do so, to take in all the chief drainage slopes; and these Forest Reserves besides being commercially valuable will safeguard the agricultural wealth of the Váda táluka.

28. The Collector of Thána has recorded that—

"2. The Collector is not satisfied with the amount of work done by the Forest Settlement Establishment. But he does not think that the small out-turn of work is due to any failing on the part of Mr. McIver.

"3. The establishment was short during the rains, and the unhealthiness of the season delayed both the start and the progress of field operations. In the Collector's own office, when encamped near Mr. McIver's, there was not a single permanent clerk on duty excepting the Head Clerk, and the exposure and risk of the Forest Settlement subordinates was of course much beyond that of an English Office."

Khándesh Collectorate.

29. Mr. C. G. Dodgson, I.C.S., has been Forest Settlement Officer of Khándesh throughout the year, with the exception of a period of one month from 27th August to 27th September while on privilege leave, when Mr. Lucas, I.C.S., Assistant Collector, was in charge of the office; Mr. Dodgson also acted as Collector of the district in addition to his Settlement duties from 4th May to 30th June. At the commencement of the year he was engaged in the Akráni Pargana in demarcating the Bhil settlements within the Akráni-Narbada proposed forest reserve, and in laying down the southern boundary of the latter; but being ordered by Government to relieve Mr. Loch, the Collector, early in May, he had to leave this work unfinished; while acting as Collector he had no time to attend to his regular duties of Forest Settlement Officer; his surveyors, however, were engaged in erecting pillars along the North Navápur and Taloda plain reserves.

During the rains Mr. Dodgson submitted reports on the settlement and demarcation of the forests, the inspection of which had been completed during the travelling season, *i. e.*, on the forests of the Sindkheda and Nandurbár tálukas, the Amli reserve in the Navápur petha, and part of the Akráni-Narbada proposed reserve, in the Taloda táluka. Orders of Government have been received on the last only.

Mr. Dodgson went out into camp after the rains early in November, and inspected part of the forests in the south of the Pimpalner táluka up to the end of the first week in December, the settlement of the northern half of the táluka having been already completed and sanctioned by Government; he then went into the Shirpur táluka with a view to seeing what lands could be added to the Shirpur-Sátpuda reserve, out of the Protected Forests in certain villages according to the Collector's proposals. In January he inspected the Protected Forests of the Sávda and Chopda tálukas with the same object. Early in February he moved camp into the Bhusával táluka and the Edalabad petha, where he completed the settlement, under the Forest Act, of the lands, which formerly occupied, had been acquired and notified under Section 4 of the said Act. During the latter part of

February he proceeded from Bhusával into the Pimpalner táluka and resumed his inspection of forest lands and waste lands for selection of forest reservations, which had been left unfinished in December 1891, and this work was completed by the end of March 1892. Enquiry was held and report submitted to Government, on forest rights of three alienated villages by Mr. Dodgson, but their orders were not out up to the close of the year.

Mr. Dodgson has performed another year's valuable work in selection and settlement of Forest Reserves in the Khándesh District with great judgment and industry, and his name will live in connection with these permanent interests for the establishment of which he has laboured so diligently.

Násik Collectorate.

30. There is no special Forest Settlement Officer employed in the Násik Collectorate, as no sufficient work is left to occupy the full time and attention of a separate officer. The different Assistant Collectors have been appointed *ex-officio* Forest Settlement Officers in their own respective charges, and they perform such work of inquiry and settlement, in respect of acquired occupied lands notified under Section 4 as may be necessary. No settlement work was undertaken during the year. The final notification under Section 19 of the Forest Act, referred to in paragraph 37 of last year's administration report, in respect of the Dindori forests, was published under orders contained in Government Resolution No. 3189, dated 9th May 1891, in the Revenue Department, and 55,377 acres were thus added to the Reserved Forests constituted under the Forest Act in the Násik Division.

31. The Dindori táluka is one of the western sub-divisions of the Násik district, having the Sahyádri range of Western Ghats for its western boundary; its area is about 528 square miles and its population about 137 to the square mile. The physical character of the country is hilly; on the north extends the Saptashring or seven-horned range of hills with Chattarsingh, one of its peaks rising to a height of 4,659 feet above sea level; the southern slopes of this range are in forest reservation. Several feeders constituting a portion of the head-waters system of the Godávari river have their sources in the Dindori highlands, the chief of these being the Kadva and Bánganga. The forest reserves are distributed fairly over the water sheds and slopes and the rough broken ground. Teak is the predominating tree, but it is only of rafter size at a distance from the ghats in the region of light rainfall; but upon the western slopes of the Sahyádris where the forest growth is comparatively dense and a mixed forest appears, containing Sadra or Ain (Terminalia tomentosa), Dhávda (Anogeissus latifolia), Tiwas (Dalbergia oojenensis), Hed (Adina cordifolia), Kalamb (Stephegyne parvifolia), Bibla (pterocarpus marsupium), Beheda (Terminalia bellerica), Khair (Acacia catechu), Kinaye (Acacia procera) and other so-called junglewood trees associating with the teak tree, the latter in these parts grows to good timber size, with tall clean cylindrical stems. The forest conservancy scheme of the Dindori táluka occupies 55,377 acres of its territorial spread.

Ahmednagar Collectorate.

32. Mr. Vyankatesh Bapuji Vadekar was special Forest Settlement Officer of the Ahmednagar Collectorate throughout the year, and completed the settlement of such lands as had been notified under Section 4 of the Forest Act; and 1,394 acres were finally notified under Section 19 of the said Act. No portion of either a Reserved or Protected Forest was disforested during the year, but on the other hand, 158 acres and 32 gunthas of occupied lands inside forest boundaries were acquired by purchase, and 178 acres and 8 gunthas by exchange for conversion into Reserved Forests; about 26,813 acres of occupied lands which are contained within the sanctioned boundaries of the approved forest reservations, still remain to be acquired in this district, to complete the different forest conservancy projects. Copies of forest registers of the Jámkhed, Karjat, Párner and Nagar tálukas, for the use of the Divisional Forest Officer, and also lists showing the old survey numbers of forest lands, with their corresponding numbers according to the revision survey, for the tálukas of Jámkhed, Nevása, Karjat, Nagar and Shevgaon, were prepared during the year for publication. Mr. Vadekar is doing very good work in the Ahmednagar district.

Poona Collectorate.

33. Mr. C. P. B. Wiltshire, I.C.S., was in charge of the Forest Settlement Office, Poona, throughout the year, with the exception of a period from 1st April to 3rd June 1891, when Mr. Cappel, I.C.S., officiated; both these officers conducted the forest settlement of the Collectorate, in addition to their own revenue and magisterial duties. An area of 553 acres and 51 gunthas of occupied lands within the sanctioned demarcation line has been acquired for forests, out of which 481 acres and 38 gunthas were obtained by exchange, and the remaining 71 acres and 13 gunthas by purchase, the compensation paid amounting to Rs. 11,759-1-1, giving an average rate of Rs. 165-9-11 per acre, which appears to be very high, but the reasons for this have been explained already.

34. The final settlement report of the Indápur táluka, referred to in the concluding portion of paragraph 39 of last year's report, to finish off odds and ends, was sanctioned by Government in their Resolution No. 8498, dated 9th December 1891, in the Revenue Department.

35. Before the days of the Forest Act the demarcated forest reservations in the Indápur táluka were limited to 10,804 acres, but subsequent selections of waste lands for forests have raised the acreage under forest conservancy management to 62,506 acres, or about 17 per cent., of the entire subdivision, which measures 566·6 square miles. The predominating tree on good soil on the banks of rivers and streams is the Bábul (Acacia arabica) which grows to large size, and is intermixed here with Bor (Zizyphus jujuba), Hinganbet (Balanites ægyptiaca), Hewar (Acacia leucophlea), &c. The country is hilly and rugged in the north-west and centre, but towards the Nira and Bhima rivers, which bound it on the north, east and south sides, it is open and level. The broken uplands which run east and west through the centre of the táluka like a back-bone, are very stony and rocky, carrying little or no soil, and as the rains are exceedingly scanty and uncertain, and aridity during the greater portion of the year is extreme, the conditions are as unfavorable as could be devised to reboisement: however, where protection against cattle has been effective, the results are very promising; and there is no reason why the bared and unpromising uplands of Indápur should not be fully covered with fuel and fodder bushes and with good grass within the next 10 or 12 years, provided goats are excluded from these areas, and villagers are not allowed to cut down the young wood, and cattle are not permitted to trample and browse down all plant life. Even now in places where there is some soil, trees are to be seen in the high lands or ridge; but it will be many years before timber, suitable for building purposes, will be produced in any considerable quantities.

36. Settlement inquiries have been completed in respect of 8,289 acres and 33 gunthas of notified forest lands in 43 villages of different tálukas, and there now remains no portion of the old forests, which were gazetted under Section 34 of the Forest Act in March 1879, unsettled. Forest registers were prepared in accordance with Symond's Manual for Khed, Ambegaon and Indápur, completing the series, and copies issued to the Divisional Forest Officer, but the duty of preparing English forest registers in the form, prescribed in the Forest Department Code, remains to be undertaken.

37. The printing of lists of occupied lands contained within the sanctioned forest reserves has progressed: copies of the lists for the Mával, Junnar, Bhimthadi, Sirúr, Indápur, Khed and Ambegaon ranges have been furnished to the local Revenue and Forest officers, and there now remain two lists to be printed, *viz.*, for the Haveli and Mulshi ranges; these are delayed for the want of village records of the revision survey, which is still unfinished: negotiations for the acquirement of the occupied lands inside the forest boundaries will now be carried on vigorously with the help of the printed lists. Mr. Wiltshire, I.C.S., has taken great interest in his settlement and demarcation duties, and has been unusually successful in acquiring possession of occupied lands within forest boundaries, and valuable work has been accomplished in the Poona District during the year.

Sátára Collectorate.

38. The selection of the permanent forest reservations and their settlement in the 14 ranges of this Collectorate have been completed some years ago, chiefly by Mr. Muir Mackenzie, I.C.S., but a great deal of miscellaneous work still remains to be done, such as the acquirement of the occupied lands contained within the sanctioned forest reservations, with their settlement after acquisition: this work has been carried on during this year by the Assistant or Deputy Collectors, in their respective sub-divisions, in addition to their own revenue and magisterial duties, and 3,806 acres were acquired by them, settled and constituted Reserved Forest under Section 19 of the Forest Act, while 4,948 acres were disforested during the year. Mr. T. D. Fry, I.C.S., Assistant Collector and *ex-officio* Forest Settlement Officer, instituted inquiries into the forest rights of the Inámdárs of Parvat and Mettaliya in the Jávli táluka, and submitted reports in the matter, which were not disposed of before the close of the year.

Sholápur Collectorate.

39. Forest demarcation and settlement in this Collectorate are practically completed, with the exception of certain occupied lands, situated within the sanctioned demarcation schemes, which have still to be acquired: this work was carried on by the District Deputy Collector, Mr. B. R. Heblikar, in addition to his own revenue and magisterial duties; 87 acres and 2 gunthas were obtained by payment of Rs. 845, and 63 acres and 23 gunthas by exchange: 93 acres were also notified under Section 4 of the Forest Act, and the work of their settlement was still going on at the close of the year.

Surat Collectorate.

40. Mr. A. Lucas, I.C.S., was special Forest Demarcation Officer for the Dángs during the year, and submitted a report No. 63, dated 1st September 1891, to the Collector of Khándesh, upon the projected forest reserves selected by him which, together with the work done by Mr. Gibb, I.C.S., during the previous season, provided for the following reservations:—

Dáng.	Total Area.		Area to be included in Forest.	
	Sq. miles.	Acres.	Sq. miles.	Acres.
Garvi	170	82	74	334
Pimpri	72	94	26	420
Amala (including Koita)	119	77	42	104
Derbhawti...	76	25	24	306
Wasurna	132	14	38	593
Chinchli Gadad	27	23	8	142
Wadhwán	4	90	2	66
Pimpládevi	3	44	...	184
Shivbára	4	99	...	252
Awchar	7	88	...	375
Kirli	21	...	...	440
Total ...	635	636	219	16

41. The Divisional Forest Officer of Surat, Mr. Madan, suggested certain additions to be made to these areas, aggregating 83 square miles 550 acres; and finally a conference of Revenue and Forest officers, composed of the Collector and Political Agent, Khándesh, the Demarcation Officer Mr. Lucas, and the Conservator of Forests, met at Dhulia on the 10th November 1891, and determined what additions could be made to the blocks proposed by Mr. Lucas, and which of the additional areas, proposed by the Divisional Forest Officer, were to be inspected again before it was finally decided whether they should be retained or abandoned. It may be mentioned that all the timber on the lands outside the forest reserves in the Dángs, will still be at the disposal of Government.

Mr. Lucas re-entered the Dángs on the 18th February 1892, and he was engaged up to the end of the year in erecting boundary marks, to define the limits of the selected reserves.

42. In the tálukás of the Surat Collectorate selections and settlements are complete, as far as outer boundaries are concerned and as far as the work of choosing sites for forest reservations has progressed; there are some tálukás in which no forest areas are to be found up to date; but a few occupied holdings within the forest boundaries have to be acquired and settled, and during the year 8 acres and 11 gunthas of these were obtained by purchase at Goema, by the Assistant Collector, who settled them in his capacity of *ex-officio* Settlement Officer; and they have been notified under Section 19 of the Forest Act.

Panch Maháls Collectorate.

43. Selection of forest areas and settlement in this Collectorate are practically complete. The Assistant Collector in charge of the Godhra táluka undertook an inquiry, under Section 7 of the Act, into rights over the areas of Protected Forest and waste lands, proposed for Reserved Forest under orders contained in Government Resolution No. 1066, dated 10th February 1891, and completed it during the year. The inquiry under Section 7 as to rights over the Protected Forest areas of Dohad and Jhálod, notified as proposed reserves on the 30th June 1891, in accordance with Government Resolution No. 2974, dated 30th April 1891, was also completed during the year, but the reports were not submitted up to the close of the year.

44. The following statement shows the total forest areas notified at different times under Sections 4, 28, and 34 respectively of the Forest Act which have undergone settlement in the different districts at the hands of their respective Forest Settlement Officers during the year of this report:—

No.	Division.	Area.		Remarks.
		Sq. miles.	Acres.	
1	North Thána	57	540	
2	South Thána	...	...	
3	East Khándesh	...	17	
4	West Khándesh	9	510	
5	Násik	86	337	
6	Ahmednagar	2	114	
7	Poona	9	60	
8	Sátára	5	604	
9	Sholápur	...	391	
10	Surat	...	8	
11	Panch Maháls	...	3	
	Total ...	172	24	

45. The following amounts have been paid in compensation for rights:—

	Name of Division.	Amount.	Remarks.
		Rs. a. p.	
1	West Khándesh	381 0 0	Paid to the holders of rights in Chopda, Shirpur and Sávda ranges.
2	Sátára	30 0 0	Paid to a Dhangar to remove his house from Teli forest in Jávli range.
	Total ...	411 0 0	

46. The expenditure incurred by the Forest Settlement Officers and the cost of their establishments entertained during the year is exhibited in the following table:—

No.	Division.	Forest Settlement Officers.		Office Establishments.		Contingencies.	Total.
		Pay.	Travelling Allowance.	Pay.	Travelling Allowance.		
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1	North Thána	5,438 13 7	1,770 14 0	2,260 14 2	723 15 8	429 5 9	10,623 15 2
2	South Thána						
3	East Khándesh	11,263 2 10	1,923 12 8	4,453 6 11	1,433 9 11	291 10 10	20,365 11 2
4	West Khándesh						
5	Ahmednagar	....	....	719 11 9	303 0 3	192 5 0	1,215 1 0
6	Poona	....	....	1,176 0 5	387 14 5	360 14 6	1,924 13 4
7	Sátára	....	....	300 0 0	120 0 0	126 9 6	546 9 6
8	Surat (Dángs)	8,448, 2 2	2,100 0 0	1,105 10 8	260 4 14	148 0 3	12,062 2 0
9	Panch Mahâls	....	....	....	....	91 15 11	91 15 11
	Total ..	25,150, 2 7	5,794 10 8	10,015 11 11	3,228 13 2	1,640 13 9	45,830 4 1

3.—FOREST BOUNDARIES.

47. The work of erecting special forest boundary marks according to the standing orders on the subject was pushed on with vigor during the year, in almost all the divisions of the Northern Circle, and the following statement will show the number of cairns erected, together with the length of the boundary lines demarcated by them in miles, and the cost incurred on their account:—

No.	Division,	Length of Boundaries in Miles.	Number of Cairns erected.			Cost.
			Large.	Small.	Total.	
						Rs. a. p.
1	North Thána	65	998	...	998	494 8 6
2	South Thána	30½	93	442	535	178 1 6
3	East Khándesh	32	3	129	132	216 14 3
4	West Khándesh... ...	25½	473	2,892	3,365	1,606 8 2
5	Násik	352	2,842	4,148	6,990	3,406 5 1
6	Ahmednagar	92	1,138	...	1,138	696 3 6
7	Poona	283	1,101	6,245	7,346	2,150 0 9
8	Sátára	219	263	5,865	6,128	1,538 14 6
9	Sholápur	99	271	1,021	1,292	392 13 3
10	Surat	158	283	53	336	737 14 0
11	Panch Mahâls	97	76	1,335	1,411	387 4 0
	Total ...	1,453	7,541	22,130	29,671	11,805 7 6
	During 1890-91 ...	1,682	5,993	14,683	20,676	8,935 15 6

48. It will be seen that although the length of boundary line marked out is less this year than last, still a greater number of marks has been built during this year, the explanation being that natural boundaries, such as rivers and nálas, have come into the total linear distance of boundary line to a smaller extent this year than last, and further the country traversed by the demarcation in 1891-92, has been rougher and more irregular, so that boundary marks have been required at closer distances.

4.—PRIVILEGES CONCEDED TO VILLAGERS.

49. No restrictions have been made during the year, and no expansions of the privileges, already conceded by Government before the year opened, to the local

population in any of the Collectorates of the Northern Circle. In the Thána Collectorate the concession, allowed last year, of the removal, by villagers of the forest villages which have contributed forest lands to the formation of the forest-block to which a coupe of the season belongs, of all branch-wood less than 6″ in girth, of the felled trees, and the cutting of shrubs and undergrowth, such as brushwood, &c., for use as *ráb* or as firewood according to their pleasure, free of charge, from the coupes of the year which are under exploitation by contractors or purchasers, was taken advantage freely in respect of coupes which are not far distant from villages; but the material was taken almost entirely for use as firewood, and not to any extent for purposes of ash manure; while coupes remote from villages and difficult of access were not indented upon by the villagers for the branch loppings or for brushwood, &c., and this material remained in several coupes with the prospect of rotting on the ground since the contractors cannot take it. No complaints have been received from villagers during the year of contractors having prevented them from taking any of the lopped branchwood under 6″ in girth, but some of the contractors were detected in appropriating some of this neglected branchwood, and were fined for doing so, because it did not belong to them, and they had not received permission to appropriate it; however, the Collector of Thána very judiciously empowered the Divisional Forest Officers to allow the contractors and purchasers of coupes to remove the small branchwood and the undergrowth when it was clear that the villagers would not take it; as it would not only be wasted otherwise, but would cause heavy conflagrations in future years when these areas, closed for reproduction, and full of grass, were fired by mischance. Not a single petition was made asking for permission to go into any of the unsold coupes which had failed to find purchasers, in order to cut and remove timber, firewood or materials for ash manure for local supply; and not a complaint was received on the point of local supply being starved.

50. Forest villagers in the Thána Collectorate do not take full advantage of the privilege given to them of taking branchwood, &c., for ráb or ash manure from the coupes, because vegetation for conversion into ash manure can generally be obtained by them, more conveniently and in sufficient quantities, from other sources of supply, which are nearer to their fields than the coupes; they have the run of all open forests for grass and brushwood and of the Protected Forests for such produce also, and likewise to lop the branches of all but a few kinds of trees. Some experiments were made by the Divisional Forest Officer, North Thána, during the year to gauge the quantities of ráb and firewood material, placed at the disposal of the forest villagers, by the branchwood and brushwood concessions. Test plots were taken in different coupes of varying constitution, and the material was carefully weighed about 48 hours after it had been cut; and the results were strikingly even; they gave an average yield of about lbs. 10,000 per acre. Free grazing of cattle was allowed to, practically, all the cattle of the forest villages and of some of their neighbouring villages also in the Thána district.

51. In other divisions, and especially in the Deccan, the privilege under the new Grazing Rules of allowing free grazing for the agricultural and milch cattle of all forest villages which have contributed gáirán to the formation of a Reserved Forest, within the entire open forest of the village instead of, as used to be, in the gáirán portion only, has worked very much to the advantage of the owners of such cattle, as the latter enjoy far better pasturage, and have a much broader area to roam over than they had before.

52. The Privilege Code of the Khándesh district is very comprehensive, but by order of Government issued in October 1890, the privileges of free grazing and of cutting of wood and bamboos in all the ranges of West Khándesh, except Sindkheda and Dhulia, were suspended for one year on account of the general prevalence of forest fires; the effect, however, of this suspension not having been as was desired and anticipated, and on a reference to Government on the point, it was ordered, in October 1891, that all suspension of privileges should cease; and consequently the concessionaries have been in the full enjoyment of their liberty in the forests of grazing, cutting and taking. No changes have been made in the Khándesh Code during the year.

53. Owing to the scanty and unseasonable rainfall in the Deccan, areas of closed forest in the divisions in that part of the country, have been opened to cattle

grazing, and to a great extent free of charge, as a special privilege to the forest and other local villagers.

54. The expenditure incurred upon the formation and constitution of Reserved and Protected Forests, during the year, has amounted to Rs, 78,881-6-5 distributed thus :—

	Rs.	a.	p.
(1) Salaries and travelling allowances of Forest Settlement Officers not charged to Forests	30,944	13	3
(2) Salaries and travelling allowances of establishments employed under Forest Settlement Officers and charged in the Forest accounts, and the contingent expenditure of the latter	14,885	6	10
(3) Demarcation of Forest boundaries upon the ground by the construction of special forest boundary marks ...	11,805	7	6
(4) Compensation for land and rights	21,245	10	10
Total ...	78,881	6	5

55. The work actually effected during the year, and represented by the expenditure detailed above, comprises—

(*a*) the settlement of 172 square miles at a cost of Rs. 266·4 per square mile ;

(*b*) the demarcation of 1,453 miles of forest boundary at Rs. 8·1 per mile ; and

(*c*) the purchase of 1,762 acres of land for forest reservation at Rs. 11·8 per acre.

CHAPTER II.

SURVEYS AND WORKING PLANS.

A—SURVEYS.

56. The operations of the Forest Survey Branch of the Government of India, in the Northern Circle during the year, were under the superintendence of Colonel Hutchinson, and were carried on in the divisions of North and South Thána, Násik, Ahmednagar, Poona and Sholápur; and the following statements show a comparison of the work performed and the expenditure incurred on Forest Surveys, during the survey years, ending 30th September 1891 and 30th September 1892, as directed in Government Resolution No. 4515 of the 3rd July 1891, in the Revenue Department :—

Statement showing the Amount and Cost of Work done by No. 2 Camp of No. 17 Party (Bombay Forests) in the Northern Circle during Survey year ending 30th September 1891.

District.	Scale.	Triangulation. Area in square miles.	Triangulation. Total Cost.	Triangulation. Cost per square mile.	Traversing. Area in square miles.	Traversing. Total Cost.	Traversing. Cost per square mile.	Detail. Area in square miles.	Detail. Total Cost.	Detail. Cost per square mile.	General Cost per square mile.	Remarks.
			Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.	Rs. a. p.	
Poona {	4″	170	353 15 6	2 1 4	16	368 14 11	23 0 11	124·35	10,852 9 10	87 4 5	112 6 8	Táluka Khed only.
Thána ... {	6″	...	...	...	39	946 1 6	24 4 2	52·86	7,576 0 8	143 5 2	...	Táluka Khed.
	...	...	...	...	45	1,091 9 0		39·70	5,690 14 6		...	Traversing is in advance in the Váda Táluka and the detail survey belongs to the Bhiwndi Táluka.
Poona ...	16″	...	...	...	...	...	...	22	4,255 5 3	...	193 6 9	Haveli, Bhimthadi and Sirur Tálukas.
Total ...	..	...	353 15 6	...	...	2,406 9 5	...	...	28,374 14 3	...	*31,135 7 1	*Is the total cost of the Northern Circle.

Statement showing the Amount and Cost of Work done by No. 17 Party (Bombay Forests) in the Northern Circle during Survey year ending 30th September 1892.

District.	Táluka.	Triangulation.			Traversing.			Topography.						Total.
								8″.			16″.			
		Area.	Cost.	Cost Rate.	Area.	Cost.	Cost Rate.	Area.	Cost.	Cost Rate.	Area.	Cost.	Cost Rate.	
			Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.	Rs. a. p.
Poona	Junnar	163	522 15 7	3 3 11	(a) 23	522 15 8	22 11 10	...	.....	...	...	.....	.....	1,045 15 3
	Haveli	75	1,824 15 9	24 5 8	...	.....	...	50·75	7,085 8 4	139 9 10	...	.....	.....	8,910 8 1
	Indápur	...	.....	...	...	.....	...	...	.....	...	15·39	2,111 2 5		2,111 2 5
Ahmednagar	Akola, &c.	220	449 8 0	2 0 8	...	.....	...	...	.....	...	...	.....		449 8 0
North Thána	Váda	...	.....	...	(b) 13	483 4 3	37 2 9	(c) 52·27	8,445 1 10	...	...	.....	137 2 10	8,928 6 1
	Bassein	...	.....	...	...	.....	...	...	.....	161 9 1	...	.....		.....
South Thána	Bhiwndi	...	.....	...	...	.....	...	31·02	5,011 11 9	...	...	.....		5,011 11 9
Sholápur	Karmála and Mádha	...	.....	...	...	.....	...	...	.....	...	(d) 24·43	3,351 4 0	.....	3,351 4 0
	Total	458	2,797 7 4	...	36	1,006 3 11	...	134·04	20,542 5 11	...	39·82	5,462 6 5	.....	29,808 7 7
Cost per square mile		...	6 1 9	...	...	27 15 3	...	...	160 11 6	...	...	137 2 10	.....	.....

(a) 180 linear miles. All in advance. (b) 57 linear miles in Váda in advance. (c) Bassein. (d) Karmála (13·74) and Mádha (10·69).

B.

Statement showing the Amount and Cost of Work done by No. 17 Party (Bombay Forests) in the Northern Circle during Survey year ending 30th September 1892.

District.	Táluka.	Triangulation.		Traversing.		Topography.				Total.	Remarks.
						8″		16″			
		Area.	Cost.	Area.	Cost.	Area.	Cost	Area.	Cost.		
			Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.	Rs. a. p.	
Poona	Junnar	163	484 1 8	(a)23	497 0 10	..	....	..	....	981 2 6	(a) 180 linear miles. All in advance.
	Haveli	75	1,747 4 2	..	..	50·75	6,729 15 4	..	....	8,477 3 6	
	Indápur	..	....	..	..	..	....	15·39	2,884 0 6	2,884 0 6	
Ahmednagar	Akola, &c.	220	410 10 3	..	..	..	....	..	....	410 10 3	In advance.
North Thána	Váda and Bassein	..	....	(b)13	457 5 5	(c) 52·27	7,998 15 0	..	....	8,456 4 5	(b) 57 linear miles all in Váda and in advance.
South Thána	Bhiwndi	..	....	..	..	31·02	4,746 12 6	..	....	4,746 12 6	(c) Bassein.
Sholápur	Karmála and Mádha	..	....	..	..	..	....	(d) 24·43	4,578 5 11	4,578 5 11	(d) Karmála (13·74) and Mádha (10·69).
	Total	458	2,642 0 1	36	954 6 3	134·04	19,475 10 10	39·82	7,462 6 5	30,534 7 7	
Cost per square mile		..	5 12 4	..	26 8 2	..	145 4 8	..	187 6 4	....	

Note.—The only difference that has been made in preparing the Form B (distribution of expenditure) from the Statement A (actual expenditure) is the transfer of Rs. 2,000 from "share of pay and travelling allowance" of Deputy Superintendent from the 8″ to the 16″ Survey.

57. Colonel Hutchinson, who was in charge of the Survey Party throughout the year, had Messrs. Lawson, S. F. Norman, and C. A. Norman as his Assistants. The 16″ Bábul Block Survey work in the Poona and Sholápur divisions was taken in hand early in October under the superintendence of Mr. A. M. Lawson, and very satisfactory progress was made till the end of December, an area of 40 square miles having been accomplished.

58. With a view to the execution of a contoured 8-inch survey of the timber-clad hill of Singhar, which is in Reserved Forest, in order to provide an especial map for the education in forestry of the students, attending the Forest Classes at the College of Science at Poona, it was necessary to fix a good many points on the hill, and it was found easier to do this by a minute triangulation than by a traverse; and accordingly the work was taken in hand on the 10th October, under the personal supervision of Colonel Hutchinson, who completed it by the 25th of December 1891, the detail survey of the hill being reserved for the hot season, which subsequently was taken in hand on the 15th of April, and was finished about the 10th of June.

59. The 8-inch work in Bhiwndi and Bassein tálukas of the Thána District was entrusted to the care of Mr. S. F. Norman, who commenced it with six surveyors early in November, and the work was visited and inspected by the Deputy Superintendent in February.

60. The triangulation and traverse work of the teak forests round Jávli-Báleshwar in the Ahmednagar district, and in the Junnar range of the Poona district, was taken in hand early in January after the completion of Singhar triangulation, and was carried on till the 10th of June, by which time 383 square miles were so treated, fixing 553 points in all. An area of 57 square miles was traversed in the Váda táluka of the Thána District, during April and May under Mr. C. Norman's control.

61. Detailed information of the actual expenditure involved upon each description of work will be found in Statement A given above; the resulting mileage rates, however, require a few remarks, especially with reference to the remarks contained in paragraph 4 of Government Resolution No. 7232, dated 12th September 1892, in the Revenue Department, as to the variation of cost rates in different districts for works classed under the same heading, *viz.*, 8-inch or 4-inch work.

62. The mileage rates in the Northern Circle are:—

	Rs.	a.	p.
16-inch work	137	2	10
8-inch work, Thána District	161	9	1
Singhar work Topographical	139	9	10
Triangulation	24	5	8

while those in the Southern Circle are:—

		Rs.	a.	p.
4-inch, Kánara District.	Topographical ...	85	6	9
	Triangulation ...	18	11	10
	Traverse	22	2	8
8-inch, Kolába District		205	7	10

63. In the first place it will be noticed that the 16-inch work is cheaper than the 8-inch work, but this is to be accounted for partly from the absolute flatness of the country surveyed, and the paucity of topographical details met with; and also because that this work has escaped being charged with any superintendence of the Drawing Establishments during the recess; it was done under the immediate supervision of the Deputy Superintendent, whose salary is charged to "General Section."

64. Again it will be noticed that the 8-inch work in the Kolába District is more expensive than that done in the Bhiwndi táluka; the reasons being:—

First.—In the months of November and December when a strong establishment was employed on this work, there was much sickness amongst the sub-surveyors; and consequently a small area was turned out although the expenditure was high.

Secondly.—It will be easily understood that in a Survey Party like the one in question all the sub-surveyors do not work at the same rate, although the slow workers employ the same amount of menial labour, and therefore cost nearly as much as the fast workers.

Thirdly.—The small scattered and broken patches of forests that came under survey in the Kolába District contributed to the increased cost.

65. Again it will be noticed that the Singhar 8-inch work is cheaper than that in either the Kolába or Thána district. This results from the Singhar work being continuous and having been undertaken by the best of the men in the party.

66. As regards the distribution of the total cost of the party between the Northern and the Southern Circles, the Deputy Superintendent states that "the survey requirements do not admit of actual cost rates in different localities being equalized; that this fact should be recognized; and that the rates should be revised accordingly as may appear equitable;" and Statement B given above exhibits the equalized expenditure of the Northern Circle furnished by the Superintendent.

ADVANCE WORK.

67. In the Poona and Ahmednagar Districts 383 square miles of triangulation have been prepared in the Junnar, Akola and Sangamner tálukas, within

which 180 linear miles of traverse work has been done; this is in hilly but fairly open country; and 13 square miles have been traversed in the Váda táluka also.

RECESS MAPPING.

68. Thána District, 19 sections.—Fair drawn on the 8-inch = 1 mile scale for reproduction at Poona.

Poona District, 6 sections.—A contoured map of Singhar hill fort fair drawn on the 8-inch scale for reproduction.

A revised and extended index map for the Northern Circle.

Sholápur District, 53 sections of 16-inch work.—Fair drawn for reproduction.

69. The Superintendent reports that all his Assistants worked in an able and steady manner, and their assistance was most valuable; and the Conservator must remark that Colonel Hutchinson has co-operated most readily with the Forest Officers, and has done his best to meet all the requirements of forest management in the production of forest maps, which evidence very careful and skilful work, and will be of the highest service in the preparation of working plans for placing the forests under methodical management, for the maintenance and improvement of their capabilities, for supplying timber and other forest produce including grass and grazing.

B.—WORKING PLANS.

70. The Working Plans division was in charge of Mr. T. B. Fry, Deputy Conservator of Forests, 2nd grade, throughout the year. The lines on which the work of this division was carried on were the same as explained in former reports, and the following statement will show the progress of such work during the year:—

No.	Range.	Total Area.	Number of Blocks per Range.	Number of Compartments actually laid out in 1891-92.	Average Area of Compartments actually laid out.	Remarks.
	North Thána Division.	Acres.				
1	Máhim	81,843	41	36	42	
2	Bassein	51,230	23	23	51	
3	Sálsette	14,441	10	16	34	
4	Váda	80,568	33	50	59	
5	Dáhánu	107,351	45	56	58	
6	Umbargaon	23,008	12	18	46	
	Total ...	358,441	164	199	52*	Average area of normal compartment is 54 acres.
	Total during 1890-91 ...	358,441	165	105	*54	* Average area of normal compartment.
	South Thána Division.					
1	Kalyán	32,178	16	18	43	† The difference in the total area is due to the transfer of two ranges, Karjat and Khálápur, from South Thána to Kolába Division, and to some extent to the rectification of area against Mokháda.
2	Murbád	71,712	20	20	51	
3	Bhiwndi	46,099	20	21	45	
4	Mokháda	40,190	16	3	56	
5	Khardi	149,366	52	80	53	
6	Sháhápur					
	Total ...	†339,545	124	142	50	Average area of normal compartment is 60 acres.
	Total during 1890-91 ...	393,822	143	109	‡69	‡ Average area of normal compartment.

71. The two forest divisions of Thána have, as heretofore, claimed the attention of the Divisional Forest Officer, Working Plans, to a far greater extent than any other division of the Northern Circle; 442 compartments were thus actually laid out on the ground by the erection of 1,132 cairns and 32,112 stones during the year, covering an area of 17,949 acres at a cost of Rs. 1,566 or Rs. 3½ per compartment, as shown in the statement given below:—

No.	Division.	Range.	Number of Compartments.	Cairns.	Stones.	Aggregate Area of Compartment.	Cost.	Average Cost per Compartment.	Average Cost per Acre.	Remarks.
						Acres.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
1	North Thána ..	Váda	50	222	3,892	2,957	250 4 10	5 0 1	0 1 4	
		Umbargaon ..	18	54	1,523	836	76 1 6	4 3 8	0 1 5	
		Dáhánu	56	204	5,041	3,250	247 15 0	4 6 10	0 1 3	
		Máhim	36	150	2,250	1,529	148 7 0	4 1 11	0 1 7	
		Bassein	23	7	1,828	1,271	72 11 6	3 2 7	0 0 11	
		Sálsette	16	31	861	540	50 15 0	3 2 11	0 1 6	
2	South Thána ..	Bhiwndi ..	21	18	1,796	951	66 9 6	3 2 9	0 1 1	
		Kalyán	18	82	2,055	766	82 6 0	4 9 2	0 1 9	
		Murbád	20	76	2,186	1,015	103 3 0	5 2 7	0 1 7	
		Sháhápur ..	80	271	8,267	4,274	357 7 0	4 7 6	0 1 4	
		Mokháda.. ..	3	6	214	167	12 2 0	4 10 8	0 1 2	
3	Poona	Bábul Blocks ..	101	11	2,194	393	97 14 0	0 15 6	0 4 0	
		Total ..	442	1,132	32,112	17,949	1,566 0 4	3 8 9	0 1 5	
		Total during 1890-91 ..	214	583	16,516	10,911	808 10 9	3 12 5	0 1 2	

72. In the Poona division Bábul Reserves to the extent of some 16,000 acres, worked under a provisional scheme prepared by Mr. Wroughton, were also dealt with by the Working Plans division. The teak forests about Singhar and Donja near Khadakvásla were also inspected by Mr. Fry, in order to obtain a clear idea of their nature, extent and distribution over the hill sides, with a view to the preparation of working plans in respect of them.

73. No work was performed in the Sátára division by the field establishment of this branch, but Mr. Fry made a tour of inspection in the Warna and Koina valleys to ascertain the general character, distribution, &c., of the forests along the Ghát line, and to form an opinion as to the practicability and utility, from a forest point of view, of opening out roads, the ultimate object of such roads being to open out the country generally, and to serve as export roads for forest produce at the same time, and he has reported that it is doubtful whether any considerable expenditure could be justified, as the timber-yielding capabilities of all the forests which would be tapped are very low at present, and that for protective purposes, on the other hand, these forests cannot be too highly valued, and unfortunately they are much too limited in extent to fully protect the head waters of the two rivers.

74. The following work was performed during the rainy season by the establishment of the Working Plans branch :—

(*a*) Mounting of a large number of village maps required for use in conjunction with Topographical Block Maps.

(*b*) Working out areas and marking out on each village map all the compartments in the Bhiwndi range.

(*c*) Printing Block number, &c., for each of the Bhiwndi Blocks.

(*d*) Drawing Compartment Index Map of the foregoing to show the general outline of each compartment.

(*e*) Entering on 4 inch scale map all compartments laid out in the previous season in the two Thána divisions, showing any corrections or modifications of each finally passed as correct on the Block Maps.

(*f*) Re-scaling of a number of Block Maps of Mokháda, Dáhánu, Umbargaon, &c., and the revision work of the Bábul Blocks in the Poona division.

75. Mr. Fry, as usual, delivered a series of lectures to the students of the Forest Class at the College of Science, Poona, during the rainy season of 1891, on the elements of Forestry and the Forest Act.

76. The total expenditure of the Working Plans division during the year amounted to Rs. 19,705 against Rs. 16,619 in the year preceding. Looking at the results of working as a whole, the operations have undoubtedly been executed more economically during the year than in the previous year, the average cost per compartment being Rs. 3-8-9 against Rs. 3-12-5. The average cost per acre is pretty nearly the same, with the exception of the Bábul Blocks in the Poona

division, where the number is large and the area small, and the cost of laying them out was not commensurate with their size.

77. The Divisional Forest Officer, Working Plans, reports that both the Divisional Forest Officers of North and South Thána rendered him most efficient aid in testing the work of the Field Establishment, not only by seeing that the work on the ground corresponded with the coupe maps, but also by satisfying themselves that the several compartments had been properly located in accordance with the natural features of the ground, as depicted on the Topographical Maps, and that although such an inspection entailed additional work on the Divisional Forest Officers, still a better check was, no doubt, kept upon the work of Field Establishment, than could have been done by the Working Plans Officer, single-handed.

CHAPTER III.

PROTECTION AND IMPROVEMENT.

1.—ESTABLISHMENTS.

78. Proposals for re-organizing the Forest Service in order to supply the recognized deficiency in the numerical strength of the establishments, chiefly by providing for the gradual development of indigenous agency, were submitted in October 1890, by the Government of India for the consideration of Her Majesty's Secretary of State for India, whose sanction to it was received by the Government of India on the 26th February 1891, and was published in this Presidency in Government Resolution No. 5685, dated 18th August 1891, in the Revenue Department. The revision scheme divides the superior forest service into two branches:—

First, the Imperial Forest Service of India to be recruited solely by officers directly appointed by the Secretary of State for India; and

Second, the Provincial Forest Service to be recruited entirely in India.

But effect was not given to this scheme during the year, and consequently there was no change in the controlling staff of the Forest Department, Northern Circle, which consisted of 1 Conservator of Forests and 13 Deputy and Assistant Conservators of Forests as in the year before. Some of these officers were absent on leave as under:—

Mr. R. C. Wroughton, Deputy Conservator of Forests, 1st Grade, and Divisional Forest Officer, Poona, on privilege leave for three months, granted to him in Government Resolution No. 1478, dated 27th April 1891, Financial Department.

Mr. H.W. Keys, Deputy Conservator of Forests, 4th Grade, and Divisional Forest Officer, Panch Mahálś, on privilege leave for three months, sanctioned under Government Resolution No. 2631, dated 24th July 1891, Financial Department.

79. Of the class Sub-Assistant Conservator, there are seven permanent appointments allotted to the Northern Circle, and they have been all occupied through-out the year.

80. The sanctioned complement of the subordinate Forest Establishment of the Northern Circle has been reduced by the following strength, owing to the transfer of the establishment belonging to the Karjat táluka and Khálápur petha from the Northern Circle to the Southern Circle :—

1	Forester, 2nd Grade	Rs.	30
1	Forester, 3rd Grade	„	20
4	Forest Guards at Rs. 12...	„	48
7	do. at „ 10 each	„	70
4	do. at „ 9 each	„	36
14	do. at „ 8 each	„	112
31	do. at „ 7 each	„	217
	Total Monthly Cost	Rs.	533

And the following statement will show the distribution and cost which amounts to Rs. 20,970 per mensem, of the existing sanctioned staff of the Northern Circle, exclusive of the strength mentioned above :—

No.	Divisions.	Number of Ranges.	Range Forest Officers.							Forest Guards.						Remarks.
			Rangers.				Foresters.									
			Rupees 100.	Rupees 80.	Rupees 60.	Rupees 50.	Rupees 40.	Rupees 30.	Rupees 20.	Rupees 15.	Rupees 12.	Rupees 10.	Rupees 9.	Rupees 8.	Rupees 7.	
1	North Thána ..	6								6	14	25	25	70	80	The pay of rangers and foresters is personal, and they are liable to be transferred from one range to another as the exigencies of the service may require. Consequently the number of appointments, in each grade is shown in lump for the whole Circle.
2	South Thána ..	6								8	19	18	19	56	84	
3	East Khándesh ..	13								8	16	20	20	40	76	
4	West Khándesh ..	10								7	14	18	18	50	102	
5	Násik	14								10	20	25	26	50	158	
6	Ahmednagar.. ..	11	3	4	6	12	20	29	29	6	12	22	22	50	85	
7	Poona..	11								9	17	26	25	60	120	
8	Sátára..	14								9	18	24	22	57	102	
9	Sholápur	7								3	6	11	8	16	68	
10	Surat	6								2	4	4	6	18	27	
11	Panch Mahála ..	5								2	5	10	10	30	48	
	Total ..	103	3	4	6	12	20	29	29	70	136	203	201	497	949	

81. In addition to the above the following temporary establishment was in entertainment throughout the year, in the divisions of Násik and Poona, where the existing permanent staff is inadequate to cope with the work of protection and management of the forest estates entrusted to their care :—

No.	Division.	Forest Guards.			Remarks.
		Rs. 8.	Rs. 7.	Total.	
1	Násik	3	3	6	Total monthly cost, Rs. 375.
2	Poona	15	30	45	
	Total ...	18	33	51	

82. Proposals for the re-organization of the subordinate forest staff, referred to in paragraphs 103 and 104 of last year's report, have not been sanctioned yet, but are still under the consideration of Government.

83. The following statement will show the existing strength and cost of the office establishment of the Northern Circle in which there was no change during the year :—

No.	Division.	Number and Gradation.											Monthly Cost.
		Clerks.								Peons.			
		Rs. 100.	Rs. 80.	Rs. 60.	Rs. 50.	Rs. 40.	Rs. 30.	Rs. 20.	Rs. 15.	Rs. 10.	Rs. 9.	Rs. 8.	
													Rs.
1	Direction	1	1	1	2	2	2	2	...	1	1	5	579
2	North Thána	...	...	...	1	1	1	1	2	...	1	3	203
2	South Thána	...	...	...	1	1	1	1	2	...	1	3	203
4	East Khándesh ...	...	...	...	1	...	1	2	2	...	1	3	183
5	West Khándesh ...	...	...	...	1	...	1	2	2	...	1	3	183
6	Násik	...	...	...	1	...	1	2	2	...	1	3	183
7	Ahmednagar	...	...	...	...	1	1	2	2	...	1	3	173
8	Poona	...	...	...	1	...	1	2	2	...	1	3	183
9	Sátára	...	...	...	1	...	1	2	2	..	1	3	183
10	Sholápur	...	...	...	...	1	1	2	1	...	1	3	158
11	Surat	...	...	...	1	...	1	2	2	...	1	3	183
12	Panch Mahálsa.. ...	...	...	...	...	1	1	2	1	...	1	3	158
13	7 Sub-Assistant Conservators' Offices ...	...	...	...	...	...	...	...	7	...	...	14	217
	Total ...	1	1	1	10	7	13	22	27	1	12	52	2,789

84. The total expenditure incurred upon forest establishments during the year has amounted to Rs. 4,58,993-3-9 as under :—

	Rs.	a.	p.
B. *I.a.*—Conservator's salary	18,000	0	0
B. *II.a.*—Conservator's travelling allowance ...	2,400	0	0
B. *I.b.*—Superior officers' salary	1,03,385	15	5
B. *II.b.*—Superior officers' travelling allowance ...	25,865	0	11
B. *I.c.*—Subordinate protective establishment's salary ...	2,49,169	13	8
B. *II.c.*—Subordinate protective establishment's travelling allowance	14,774	2	2
B. *I.d.*—Office establishment's salary	34,256	1	3
B. *II.d.*—Office establishment's travelling allowance ...	11,142	2	4
Total ...	4,58,993	3	9

2.—GENERAL PROTECTION AND BREACHES OF THE FOREST LAW.

85. Sixty-five cases of criminal prosecutions were awaiting trial by Magistrates when the official year opened ; four of these cases belonged to the two ranges, Karjat and Khálápur, which have been transferred to the Southern Circle, and they have therefore been deducted from the opening balance, which was then left at 61 : during the year 1891-92, 1,314 new cases were sent up to the Criminal Courts, making 1,375 cases on the registers. Out of this number, 1,262 cases were disposed of during the year, with the result that in 988 cases convictions were obtained and 274 cases were acquitted. 2,489 persons were convicted and punished, and 889 persons escaped under the 274 cases, which were acquitted. At the close of the year 113 cases were awaiting trial.

86. The following table furnishes a comparative statement of the number of cases tried before Magistrates for breaches of the forest law, during the year under report and the year preceding, with the results of the trials :—

No.	Division.	1890-91.		1891-92.		Percentage of failures.		Remarks.
		Prosecutions.	Acquittals.	Prosecutions.	Acquittals.	1890-91	1891-92.	
1	North Thána	214	25	158	18	11·6	11·3	
2	South Thána	130	41	113	30	31·5	26·5	
3	East Khándesh	119	14	44	8	11·7	18·1	
4	West Khándesh	126	23	76	18	18·2	23·6	
5	Násik	87	30	118	18	34·5	15·2	
6	Ahmednagar	95	31	166	36	32·6	21·6	
7	Poona	474	110	241	58	23·2	24·0	
8	Sátára	37	11	105	27	29·7	25·7	
9	Sholápur	97	24	176	55	24·7	31·2	
10	Surat	4	3	3	1	75·0	33·3	
11	Panch Maháls	50	10	62	5	20·0	8·0	
	Total ...	1,433	322	1,262	274	22·4	21·7	

87. In the North Thána division some bad cases of looting the forests were discovered in the Bassein range. The contractor of the Shirgaon coupe was prosecuted before the Second Class Magistrate, because some standards had been felled illicitly in the coupe, it is alleged by his direction, and a conviction was obtained, and the contractor and one of his servants were sentenced each of them to 15 days' simple imprisonment, and the former to a fine of Rs. 100 in addition. But on appeal the conviction was upset on a technical point. The Sálsette forests are looted pretty considerably by men and women who resort to them for the removal of firewood in head-loads, for sale in the suburbs of the city of Bombay, the coast villages of Sálsette, and in the town of Thána; these people manufacture dead wood by ringing and killing young trees, and it is very difficult to catch them in the act, and to stop this head-load depredation; the commercial value assessed by a village panch of a bundle of faggots is small, and the offence viewed in this aspect is one of "light gravity" which does not call for heavy punishment, consequently the venture of running head-loads is a paying business. There is no extensive looting in any of the other ranges, but Dhowda (Anogeissus latifolia) saplings are felled and stolen for cart-axles, and Khair trees (Acacia catechu) for ploughs. The system of working plans with numerous blocks and coupes has done very much to extinguish the heavy looting of the Thána forests for the export trade, which used to be proverbial. The number of cases sent up to the Courts for trial is 25 per cent. less than during the year before, and gives about one to every 3,000 acres of forest; the percentage of failures is a trifle lower than before.

88. In the South Thána division the number of cases prosecuted has decreased by 21·5 per cent., owing in a measure to the loss of two ranges, Karjat and Khálápur, and also to the completion of the Tánsa water-works, and the consequent disappearance of the thousands of labourers, who were employed upon the duct-line, which passes in a tortuous course through the division from east to west. Concurrently the number of acquittals has decreased by 5·9 per cent. The following figures are instructive; and seeing that the forests are scattered over 660 square miles of country, they cannot be regarded as unsatisfactory, especially as the protection of the forests against thefts is, except in a few localities, very fair:—

Range.	Number of Cases.	Number of Persons prosecuted	Number of Persons convicted.	Number of Persons acquitted.	Number of Persons awaiting trial.	
Bhiwndi	47	86	66	20	33	13 cases.
Shábápur	20	68	48	20	...	
Khardi	17	40	33	7	27	
Mokháda	4	13	13	...	...	
Kalyán	20	41	36	5	...	
Murbád	22	63	49	19	...	
Total ...	130	311	245	71	60	13

89 The following cases are worthy of brief mention :—

(1) In the Murbád range 26 Kolis descended from the Junnar táluka above the Sáhyádris, and made a raid upon the Palu forest, and were detected by three forest guards, who were unable to arrest them as the Kolis showed fight; but the guards followed them up the ghâts to Junnar, where the Kolis were caught with the stolen timber, and on being prosecuted, ten accused were sentenced to one month's rigorous imprisonment, two to 15 days' rigorous imprisonment, and one, a boy of 15 or 16 years age, to 8 days' rigorous imprisonment. The others got off for want of evidence.

(2) In the Khardi range about 100 teak trees were felled in the Temburli forest by one Narayen Tukajirao of Temburli, who showed a permit alleged to have been given him by the Mámlatdár as his warrant, but it was found to be a forgery; and he was fined, convicted and sentenced to two years' rigorous imprisonment.

(3) Four persons of Gholsai were caught by Annaji Babaji, Forest Guard, felling a teak tree, and were tried, convicted and sentenced, two of them to a fine of Rs. 30 each, and the other two to a fine of Rs. 20 each. The timber felled by them, with the cart, bullock and axes used in the commission of the offence were confiscated and sold for Rs. 77. This abnormally heavy punishment has had a deterrent effect which the usual punishments in such cases of petty fines failed to secure.

90. In the East Khándesh division the number of prosecutions shows a decrease of 75 per cent., but the percentage of failures has risen from 11·7 to 18·2. The reason for the fewer number of prosecutions is, that all cases of breach of the rules under Section 41 of the Forest Act were compounded, and none were sent into the Criminal Courts; and the Divisional Forest Officer explains that the reason for the increase in the acquittal is that the Subordinate Magistrates are reluctant to convict, although the offence may be proved, when a criminal intention has not been exhibited. The District Magistrate has remarked: "There is no doubt a tendency in Magistrates to look to the intent in all cases brought before them, but a circular is being issued, which it is hoped may be of some assistance." After all it should be remembered that 800 square miles of forest lands, spread over a very large area, are affected, and out of 44 cases prosecuted, or 1 case to about 12,000 acres, 8 only have been let off.

91. The number of prosecutions in West Khándesh is 40 per cent. less than of the preceding year, but nearly one-fourth were acquitted. The Divisional Forest Officer explains that great care is taken to thoroughly scrutinize every case before it is sent into Court; and seemingly the rock upon which the prosecutions have come to grief is "no criminal intention." A pátil was charged in the Nandurbár range with setting the forests on fire while smoking, and also with bribing the villagers with Rs. 20, not to tell against him: he was tried and acquitted on the charge of firing the forest, but was found guilty of bribery and was sentenced to a fine of Rs. 50. In this division there are over 1,200 square miles of forest, and 76 cases have been prosecuted, or one case in about 9,600 acres; of these 18 were let off.

92. An increase in the number of prosecutions appears in the Násik division, 118 cases, of which 20 were old, having been tried, affecting a forest area of nearly 1,200 square miles; the number of acquittals is only 18; and the percentage of failures has decreased from 34·5 to 18·0. The greater number, 54, of the new cases of the year were for grazing within closed forest wherein grazing is prohibited.

93. In the Ahmednagar district also the number of prosecutions has increased from 95 to 166: here we have 831 square miles of forest, and strict forest protection especially important as the climatical conditions are not favourable to the reboisement of barren uplands. The number of acquittals is 36, and the percentage has declined from 32·6 to 21·6. In 171 cases of discovered forest offences the offenders could not be found. In 136 trivial cases the offenders were let off with caution.

94. The prosecutions in the Poona division have fallen from 474 cases to 241, of which 58 failed to secure conviction, the percentage of failures having risen slightly from 23·2 to 24·0; 133 of the cases were for illicit grazing.

95. The Sátára division sent up 105 cases to the Courts, against 35 of the previous year, and 27 failed, which gives a percentage of 25·7. In two ranges there were no prosecutions, and in two others no acquittals; in the Sátára range one prosecution only, which succeeded; 164 discovered cases, in respect of which the offender was not found, were reported. The District Magistrate remarks: "The village Panchayats are prone to take a lenient view of forest offences and assess the damages done at a low rate; so also there is a tendency on the part of Magistrates to inflict light punishments for forest offences, and hence very little fear is felt by such offenders when they are caught."

96. In the Sholápur division 176 cases were tried during the year; thus there has been an increase of 79; and the dismissals were 55 against 24 of the previous year, the percentage of failures having risen from 24·7 to 31·2.

97. Only three cases were taken into the Magistrate's Court in the Surat division, and one of these was dismissed through the witnesses having turned round, but the Magistrate recorded his conviction of the accused's guilt. In addition to these cases a forest guard, Kánchanprasád Hirámán, was prosecuted before the Assistant Political Agent of Khándesh for extorting money under threat from a Dáng villager caught collecting mhowra flowers, and he was convicted and sentenced to three months' rigorous imprisonment.

98. An increase in the number of cases prosecuted is likewise apparent in the Panch Mahals division, the figures having risen from 50 to 62, but the percentage of failures has declined from 10 to 8. Sixty of the cases were for illicit felling of trees or stealing timber, and 110 persons were convicted and punished in connection with them.

99. Taking the whole of the Northern Circle with its 8,663·5 square miles of forest under conservancy administration of the Forest Act, it cannot be urged that Forest Officers have been precipitate in sending up cases to Criminal Courts, for it will be seen that the average given is about 1 case to 4,393 acres of forest land. Forest reserves are spread over the face of nature, representing a very large expanse of country, and the difficulty of protecting them is consequently much greater than if they were in a solid compact mass. Density of population, the state of a district in regard to its ligneous vegetation, and conditions of supply and demand are important factors in determining the proportions of forest crime; and it may be very safely urged that in the Deccan districts, while the difficulties of protecting forest growth are more considerable, the temptations to commit offences are beyond measure greater than existing, in Kánara for instance, with its magnificent forests of splendid timber of untold wealth and a comparatively sparse population, having no great and hungry market within its limits or at its threshold.

100. The distribution of the 113 cases remaining pending in the Criminal Courts at the close of the year in the different divisions is:—

No.	Division.	Number of Cases.
1	North Thána	9
2	South Thána	17
3	East Khándesh	9
4	West Khándesh	5
5	Násik	18
6	Ahmednagar	14
7	Poona	9
8	Sátára	17
9	Sholápur	13
10	Surat	.....
11	Panch Mahals	2
	Total ...	113

101. The following statement gives a classification of the new cases of the year of this report:—

No.	Division.	Offences relating to the misappropriation of				Total.
		(a) Timber.	(b) Firewood.	(c) Minor Forest Produce.	(d) Other Offences.	
1	North Thána	37	8	6	107	158
2	South Thána	110	...	3	...	113
3	East Khándesh	9	11	14	10	44
4	West Khándesh	8	3	32	33	76
5	Násik	40	...	...	78	118
6	Ahmednagar	15	9	2	140	166
7	Poona	21	39	10	171	241
8	Sátára	29	12	...	64	105
9	Sholápur	...	6	1	169	176
10	Surat	3	...	...	...	3
11	Panch Mahals	53	7	...	2	62
	Total ...	325	95	68	774	1,262

102. The number of cases compounded under Section 67 of the Forest Act during the year of the report, and the year before, is given in the following statement as directed in Government Resolution No. 3527, dated 2nd May 1884, in the Revenue Department:—

No.	Division.	Taken into Court.		Compounded under Section 67 of the Forest Act.		Total number of Cases.	
		1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.
1	North Thána	214	158	99	96	313	254
2	South Thána	130	113	356	254	486	367
3	East Khándesh	119	44	1,246	1,570	1,365	1,614
4	West Khándesh	126	76	1,168	1,248	1,294	1,324
5	Násik	87	118	1,029	1,472	1,116	1,590
6	Ahmednagar	95	166	2,481	2,941	2,576	3,107
7	Poona	474	241	1,707	2,061	2,181	2,302
8	Sátára	37	105	147	923	184	1,028
9	Sholápur	97	176	1,553	1,608	1,650	1,784
10	Surat	4	3	20	17	24	20
11	Panch Mahals	50	62	111	135	161	197
	Total ...	1,433	1,262	9,917	12,325	11,350	13,587

103. The classification of the cases compounded during the year is given below, as desired in Government Resolution No. 7232, dated 12th September 1892, Revenue Department:—

No.	Division.	Offences relating to the misappropriation of				Total.	Remarks.
		(a) Timber.	(b) Firewood.	(c) Minor Forest Produce.	(d) Other Offences.		
1	North Thána	41	24	21	10	96	
2	South Thána	200	...	11	43	254	
3	East Khándesh	2	217	660	691	1,570	
4	West Khándesh	114	184	764	186	1,248	
5	Násik	561	...	9	902	1,472	
6	Ahmednagar	14	205	1	2,721	2,941	
7	Poona	79	323	10	1,649	2,061	
8	Sátára	112	297	...	514	923	
9	Sholápur	4	12	1	1,591	1,608	
10	Surat	9	4	4	...	17	
11	Panch Mahals	92	11	24	8	135	
	Total ...	1,228	1,277	1,505	8,315	12,325	

104. The sums realised from cases compounded under Section 67 of the Forest Act, in the several divisions of the Northern Circle, during the year under report, are given in the following statement as directed in Government Resolution No. 8738, dated 24th December 1887, in the Revenue Department; this money is credited without any deduction in respect of any rewards which may have been given to persons who may have contributed to the detection of cases, under Receipts V (*c*), in accordance with the system of classification of Forest accounts, prescribed in the list published with Government Resolution in the Revenue Department, No. 2420, dated 8th April 1891; previously all sums realised by way of compensation for damage done to a forest were classified and credited as revenue of the forest damaged:—

No.	Division.	Amount.			Remarks.
		Rs.	a.	p.	
1	North Thána...	326	13	6	
2	South Thána	542	15	3	
3	East Khándesh	5,717	0	2	
4	West Khándesh	5,719	11	1	
5	Násik	4,828	1	2	
6	Ahmednagar...	5,290	14	2	
7	Poona	3,857	12	7	
8	Sátára	1,688	8	6	
9	Sholápur	2,164	14	4	
10	Surat	106	2	3	
11	Panch Mahâls	170	14	6	
	Total ...	30,413	11	6	

105. The following statement exhibits the number of compounded cases in respect of which rewards have been paid to persons, who have contributed to the detection of the cases, together with the amounts paid in rewards, under the rule embodied in Government Resolution No. 8568, dated 16th December 1887, in the Revenue Department, which reads thus: "Rewards to persons contributing to the detection of a case may be given up to a maximum, in each case, of Rs. 10 and within the limit of the sum realised by the Divisional Forest Officer, and above Rs. 10 and within the limit of the sum realised by the Conservator":—

No.	Division.	Number of Cases.	Rewards amounting to											Total Amount paid.	Remarks.
			Re. 1.	Rs. 2.	Rs. 3.	Rs. 4.	Rs. 5.	Rs. 6.	Rs. 7.	Rs. 8.	Rs. 9.	Rs. 10.	More than Rs. 10.		
1	North Thána ...	...	...	...	...	...	...	Nil.	...	...	...	...	...	...	
2	South Thána ...	...	...	...	...	...	...	Nil.	...	...	...	...	...	...	
3	East Khándesh ...	20	2	4	5	1	3	...	1	...	...	1	*3	107	* But below Rs. 20.
4	West Khándesh ...	414	273	71	33	14	7	3	5	...	1	7	...	737	
5	Násik	52	†28	8	1	2	6	1	1	1	1	1	2	138	†Out of this 17 cases are for rewards below Re. 1.
6	Ahmednagar ...	3	...	...	...	...	1	...	...	...	...	2	...	25	
7	Poona	...	...	...	...	...	...	Nil.	...	...	...	...	...	...	
8	Sátára	678	‡597	62	14	2	2	...	1	...	...	...	...	264	‡ Out of this, 574 cases are for rewards below Re. 1.
9	Sholápur	...	...	...	...	...	...	Nil.	...	...	...	...	...	...	
10	Surat	...	...	...	...	...	...	Nil.	...	...	...	...	...	...	
11	Panch Mahâls ...	...	...	...	...	...	...	Nil.	...	...	...	...	...	...	
	Total ...	1,167	900	145	53	19	19	4	8	1	2	11	5	1,271	

106. It will be seen that in a total number of 1,167 cases rewards aggregating Rs. 1,271 were paid against a total number of 12,325 cases compounded with a total sum of Rs. 30,413-11 6 credited in compensation. The cost of rewards is charged in the Forest Accounts to A IX c. against Budget provision.

107. The following statement shows—

(1) the number of cases sent up to the Divisional Forest Officer for consideration under Section 67 of the Forest Act;

(2) the number of cases in which the compensation offered by the accused has been accepted by Forest Officers;

(3) the number of cases which were considered by the Divisional Forest Officer to be too trifling for notice under Section 67, and which were dismissed accordingly;

(4) the number of cases in which appeals were made;

(5) the manner in which appeals were disposed.

This statement was directed by Government Resolution No. 1899, dated 13th March 1891, paragraph 11:—

No.	Division.	Number of Complaints disposed of under Section 67.	Number of Cases in which Compensation has been accepted.	Number of Appeals against the Proceedings.	Manner in which Appeals have been disposed of.	Remarks.
1	North Thána ...	96	96	Nil.	...	
2	South Thána ...	254	254	,,	...	
3	East Khándesh...	1,570	1,570	,,	...	
4	West Khándesh..	1,248	1,248	,,	...	
5	Násik	1,472	962	,,	...	In 510 cases the offenders were let off with a warning.
6	Ahmednagar ...	2,941	2,941	,,	...	In Ahmednagar the Divisional Forest Officer let off many cases wherein the village panch had assessed the damages at below 4 annas.
7	Poona	2,061	2,061	,,	...	
8	Sátára	923	923	,,	...	
9	Sholápur ...	1,608	1,608	,,	...	
10	Surat	17	17	,,	...	
11	Panch Mahals ...	135	132	,,	...	In 3 cases the offenders were let off with a warning.
	Total ...	12,325	11,812	Nil.	Nil.	

108. The appeal shown as "not disposed of during the year" against Násik in the statement embodied in paragraph 118 of last year's report was decided by the District Magistrate, who reduced the amount of compensation which had been fixed originally, and the reduced sum was then offered by the accused, and was accepted by the Divisional Forest Officer.

109. The following statement shows the progressive increase of cases compounded by Forest Officers in the Northern Circle since 1882-83, under Section 67 of the Forest Act. Only two appeals have been made in the ten years against the order of the Divisional Forest Officers, in the 51,668 cases settled by them outside the Magisterial Courts:—

No.	Division.	Number of cases compounded during the years.										Remarks.
		1882-83.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.	1891-92.	
1	North Thána	8	11	13	39	23	26	38	46	99	96	
2	South Thána	28	33	31	31	107	182	306	211	356	254	
3	East Khándesh	122	61	126	144	117	153	280	446	1,246	1,570	
4	West Khándesh	58	40	300	254	195	254	454	492	1,168	1,248	
5	Násik	73	79	195	564	828	714	1,137	852	1,029	1,472	
6	Ahmednagar	50	268	1,132	1,929	1,805	2,115	2,199	2,157	2,481	2,941	
7	Poona	56	61	133	278	463	449	439	742	1,707	2,061	
8	Sátára	...	...	49	67	54	186	250	280	147	923	
9	Sholápur	58	193	317	461	625	977	952	1,165	1,353	1,608	
10	Surat	...	...	3	4	10	21	17	26	20	17	
11	Panch Mahals	...	4	11	56	78	65	82	68	111	135	
	Total ...	453	750	2,310	3,827	4,305	5,142	6,154	6,485	9,917	12,325	

110. The classification of the sums of money accepted under Section 67, in amounts of rupee one and upwards, to the maximum permitted by the law, is

given in the following statement, as directed in Government Resolution No. 1899, dated 13th March 1891, in the Revenue Department:—

No.	Division.	Number of cases in which compensation was fixed at rupees																							
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	North Thána ..	36	19	10	6	8	5	..	5	..	4	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..
2	South Thána ..	183	85	10	9	6	2	3	1	1	1	..	..	1	1	..	..	..	..	..	..	..	1	..	..	..
3	East Khándesh.	882	200	88	54	69	36	28	31	17	24	14	19	5	3	15	6	7	3	1	8	3	5	3	4	7
4	West Khándesh	547	178	93	86	62	44	26	30	18	33	10	20	7	7	9	6	1	2	4	11	2	3	2	..	6
5	Násik	369	140	97	76	57	42	20	18	8	22	..	15	..	..	25	..	..	..	..	24	..	..	..	..	19
6	Ahmednagar ..	1,667	612	266	122	65	44	10	25	13	16	8	7	11	5	7	1	8	..	1	1	2	..	1	3	2
7	Poona	1,226	395	156	92	68	25	25	16	9	12	2	3	2	3	2	4	2	2	..	3	..	1	..	..	5
8	Sátára	466	187	90	55	36	24	17	13	3	7	6	4	3	1	2	..	..	1	..	2	..	..	..	1	1
9	Sholápur ..	1,022	295	125	56	36	21	12	15	6	3	2	..	1	3	3	..	1	2	..	..	1	4	..	..	..
10	Surat	7	..	5	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
11	Panch Mahális .	111	11	4	2	..	..	2	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..
	Total ...	6,516	2,072	944	558	408	243	173	154	77	122	42	68	30	25	63	17	19	12	7	49	8	14	6	8	40

No.	Division.	Number of cases in which compensation was fixed at rupees—*continued.*																							
		26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	Total.
1	North Thána ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	96
2	South Thána ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	254
3	East Khándesh.	4	2	..	1	5	1	5	2	..	..	..	..	1	..	1	1	2	..	..	1	2	..	..	2	8	1,570
4	West Khándesh	1	2	2	1	5	1	..	1	3	2	..	..	2	4	5	1	1	1	..	..	..	..	..	..	9	1,248
5	Násik	..	..	..	..	13	..	..	..	..	..	..	..	..	..	9	..	..	..	..	..	..	..	..	..	8	962
6	Ahmednagar ..	..	..	1	1	1	..	1	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	8	2,941
7	Poona	2	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	3	2,061
8	Sátára	1	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	923
9	Sholápur ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,608
10	Surat	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	17
11	Panch Mahális .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	132
	Total ..	8	4	3	4	24	2	8	4	4	2	..	..	3	5	16	2	3	1	..	1	2	..	3	2	36	11,812

111. The number of cases disposed of by Assistant Collectors under Section 43 of the Land Revenue Code, in accordance with Government Resolution No. 7844, dated 3rd October 1884, in the Revenue Department, in respect of the Protected Forests of the two Thána divisions, as compared with that of the preceding year, is given in the following statement :—

No.	Division.	1890-91.					1891-92.					Remarks.
		Number of Cases.	Value of Forest Produce.	Acquittals.	Convictions.	Amount of Fines.	Number of Cases.	Value of Forest Produce.	Acquittals.	Convictions.	Amount of Fines.	
			Rs. a. p.			Rs. a. p.		Rs. a. p.			Rs. a. p.	
1	North Thána ...	*44	73 0 0	...	2	119 0 0	5	8 5 3	...	5	6 7 9	* Out of the 42 cases remaining undisposed of last year 14 have been disposed of during 1891-92 and 28 still remain to be disposed of.
2	South Thána ...	6	36 0 0	...	6	8 0 0	1	1 8 0	...	1	1 8 0	
	Total ...	50	109 0 0	...	8	127 0 0	6	9 13 3	...	6	7 15 9	

112. There was a decrease on the whole in the number of prosecutions taken into the Criminal Courts, being 1,262 against 1,433 in the year preceding, but on the other hand, there was an increase of 2,408 in the number of cases compounded under Section 67 of the Forest Act, during the official year ending the 31st March 1892.

113. The Collector's remarks on the East-Khándesh administration report, on this head, read as under:—

"Considerable more use has been made of the provisions of the Act which allows cases to be compounded, there being a total increase of 324 cases as compared with 1890-91. This increase is chiefly in minor breaches, grazing, &c., and it is much better to treat these cases in this way than to spend time and money in prosecuting the offenders. No doubt, as pointed out by Mr. Desái, the temptation to graze now in closed areas is greater than before. There may come a time then when it will become necessary to treat such offences more severely in order to check the increasing inclination to trespass in closed forest."

114. The Collector of Sátára remarks that many cases under Section 67 of the Forest Act were left undisposed of by the previous Divisional Forest Officer, and Mr. Fagan had to clear them off. "There is no undue use of this section now."

115. The Collector of the Panch Maháls has recorded: "Prosecutions and compoundings show an increase over the previous year. It is satisfactory to note that the percentage of failure in action of the former sort is reduced, and the procedure of the Divisional Forest Officer appears to have been generally judicious. More strictness is required in dealing with professional graziers, especially in the neighbourhood of Chapaner block. Not only does that part of the block, which lies near the Chárans settlements, show severe signs of over-grazing, but in the neighbouring forest block where grazing is allowed, the axe is freely used by the graziers."

116. The Collector of Ahmednagar in his forwarding observations suggests "that it might be worthwhile suggesting to Government that all Magistrates should be appointed Forest Officers for the purpose of carrying out the provisions of Section 67. Under present arrangements the whole of the final responsibility for this work is virtually thrown on the Divisional Forest Officer, who, in the present instance, has had to dispose of nearly 3,000 cases, most of them of a trivial nature, during the year.

117. The number of cattle of different kinds impounded in the several divisions of the Northern Circle, under Section 69 of the Forest Act, for trespassing into closed portions of forests, as also for grazing in open forest areas without passes, is given in the following statement, as directed in paragraph 13 of Government Resolution No. 1899, dated 13th March 1891, Revenue Department:—

No.	Division.	Kind of Forest Area.	Cows and Bullocks.	Buffaloes.	Camels.	Horses.	Asses.	Sheep.	Goats.	Total in Closed Area.	Total in Open Area.
1	North Thána ...	Closed ...	867	170	...	...	...	...	516	1,553	...
		Open ...	250	36	...	...	...	...	...	...	286
2	South Thána ...	Closed ...	532	69	...	...	...	...	79	680	...
		Open ...	...	18	...	...	...	...	...	...	18
3	East Khándesh ...	Closed ...	7,610	839	...	48	...	2,303	1,656	12,456	...
		Open ...	6,437	922	...	21	...	10,294	2,552	...	20,226
4	West Khándesh ...	Closed ...	12,220	1,498	...	117	14	4,048	1,435	19,342	...
		Open ...	2,332	191	...	19	32	1,368	1,216	...	5,158
5	Násik	Closed ...	8,816	873	...	131	29	16,867	5,925	32,641	...
		Open ...	8,115	473	2	147	...	12,104	4,466	...	25,307
6	Ahmednagar ...	Closed ...	22,074	1,560	...	210	69	12,911	9,884	46,708	...
		Open ...	19,545	1,272	...	477	107	16,109	11,155	...	48,365
7	Poona	Closed ...	9,135	759	...	124	59	12,127	4,545	26,749	...
		Open ...	4,451	522	...	82	41	6,859	6,964	...	18,919
8	Sátára	Closed ...	7,797	1,833	...	98	32	2,025	10,601	22,386	...
		Open ...	2 553	803	...	59	15	1,406	9,103	...	14,034
9	Sholápur	Closed ...	24,893	2,270	...	214	132	8,772	2,958	38,239	...
		Open ...	1,193	135	...	13	...	1,550	219	...	3,110
10	Surat	Closed ...	121	64	...	...	...	...	194	379	...
		Open ...	23	...	...	...	...	...	...	...	23
11	Panch Maháls ...	Closed ...	117	1	...	...	...	...	4	122	...
		Open ...	260	46	...	...	4	112	1.173	...	1,595
	Total ...	Closed ...	94,192	9,936	...	942	335	59,053	37,797	2,02,255	...
		Open ...	45,159	4,418	2	518	199	49,892	36,853	...	1,37,041

118. The numbers of cattle impounded last year, (*a*) for trespassing into closed areas, and (*b*) for grazing without passes in open areas, were 202,372 and 100,221 respectively. A comparison of these figures with those of the year under report, will show that there was a decrease of 117 under the former, and an increase of

36,820 under the latter class of offences against grazing laws. The cause is not far to seek: it is owing to the population keeping cattle which they do not take care of, but send out to forage for their living, and to the constant endeavour of the owners of cattle to evade the payment of fees. It will be seen that in the closed forests, from which cattle are excluded in the interests of forest conservancy, so that natural and artificial reproduction of timber may not be destroyed, but may have a fair chance of living, 202,255 cattle trespassed, having either wandered in while roaming untended in search of food, or having been deliberately driven in, or having been wilfully allowed to trespass; of this number no less than 59,053 were sheep and 37,797 were goats, the property chiefly of wandering and professional graziers; while from open forests in which grazing of cattle of the bovine species might, in almost all cases, be purchased by paying the fee for a permit, 137,041 cattle were driven to the pound; of this number 49,892 were sheep and 36,853 were goats.

119. In the Konkan and Gujarát, the country of heavy rainfall, of a vigorous growth of grass, cattle trespass is not serious; but in the Deccan, where grass is scarce outside of the forest reserves, while large stocks of cattle are kept for the beef and mutton markets, where the climatic conditions are not so favourable to the growth of vegetation, the rainfall being uncertain and scanty, there cattle-trespass is very severe. The Commissariat Department in Ahmednagar have made a representation of the impossibility of keeping cattle, the property of villagers and others, from trespassing into their grass preserves, even with special watchers put over these preserves, the ordinary rate of pound-fees exercising no deterrent influence upon the owners of cattle. The truth is that the rayat prefers to run the risk of his cattle being caught and impounded, rather than to pay a grazing fee beforehand. Ignorance of forest boundaries, or of the differentiation of closed and open forests, has nothing whatever to do with cattle-trespass: every little cow-boy in a forest village knows where the forest boundaries run, the location and extent of the closed forest and of the open or grazing areas; and there is no difficulty in obtaining grazing permits, for the village officers are supplied with blank permit books for issue of permits to any cattle owner, who may apply for a permit, and they are only too anxious to supply permits, as they receive a percentage of the receipts derived from their sale. With more than three quarters of the whole area of the forests in the Thána district, open to grazing, there is no excuse for the villagers to allow their cattle to go into the closed compartments and plantations, upon the efficient protection of which depends the success of the working plans in respect of them, but they have been doing this so persistently that on the recommendation of the Collector, Government have, in their Resolution No. 4381, dated 18th July 1891, in the Revenue Department, raised the scale of pound fees—

For each buffalo from	...	...Re. 0-8-0	to Re.	1-0-0
For each horse, mare, gelding, &c., from		„ 0-4-0	to „	0-8-0
For each calf, ass, pig, &c., from		„ 0-2-0	to „	0-4-0

and this will possibly have a wholesome effect upon cattle-trespass in the future.

120. As a rule the owners of trespassing cattle, the property of villagers, have generally been warned when the animals are seen in the forests for the first time; and often the animals are driven out a second time even; and it is only after repeated and deliberate infraction of the law that animals are impounded, and action is taken against their owners. Government Resolution No. 5763 of 17th July 1885, in the Revenue Department, in paragraph 2 gives the orders on the point.

121. The Collector and District Magistrate of Khándesh has noted that "it is satisfactory to find that the number of cattle impounded has fallen from 45,821 to 24,500, nearly 50 per cent., in the West Khándesh division, and as the forest establishment would appear to have been, if any thing, more on the alert, it may be taken that the people are getting to know the reserves better and are more careful."

122. The Collector and District Magistrate of Ahmednagar has recorded that "the number of cattle impounded for trespass in open and closed reserves has again been undesirably large. In his remarks as to the reasons for this the

Divisional Forest Officer has omitted to notice the lightness of pound fees. To this, however, he has called attention in a separate report, and proposals to raise the fines in respect of cattle trespassing in the forests of the villages that have been most to blame, have already been submitted to Government."

123. The Collector and District Magistrate of Sátára has stated: "I have no valid reasons for thinking that the forest subordinates impound cattle harshly and unnecessarily. I have found the Range Forest Officers reasonable and intelligent men; when doing jamábandi, I have made it a rule to have the Range Forest Officer of the táluká in question seated by me, and I ask the officers of each village if they have any complaint to make in forest matters, so also I ask the Ranger if he has any complaint against the village, and in this way differences are amicably settled."

3.—CIVIL SUITS.

124. No civil suit was instituted either by or against Government in any of the divisions of the Northern Circle, during the year. The two suits referred to in paragraphs 131 and 132 of last year's report, in the North Thána division, were still under adjudication and remained undecided up to the close of the year.

125. In the Poona division a sum of Rs. 293-1-0 has been recovered from Dipchand Balkisan, out of the amount of Rs. 320-5-5, referred to in paragraph 130 of last year's report.

4.—FOREST FIRES.

126. The following statement exhibits the results of fire conservancy in the several divisions of the Northern Circle, during the year, as compared with those of the year preceding:—

No.	Division.	Forest Area placed under protection against fire.		Acreage burned.		Percentage burned.		Expenditure incurred.		Remarks.
		1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	
								Rs.	Rs.	
1	North Thána ..	449,465	436,398	53,559	8,613	11·9	1·9	751	2,364	The figures entered in column "Forest area placed under protection against fire" include the areas provisionally notified under Sections 4 and 28 of the Forest Act which are in charge of the Forest Department, but which are not included in Form No. 49.
2	South Thána ..	425,097	377,780	85,300	10,420	20·0	2·7	589	701	
3	East Khándesh ..	518,169	510,796	19,345	33,766	3·7	6·6	95	176	
4	West Khándesh ..	1,088,621	1,088,625	606,972	639,312	55·7	58·7	173	226	
5	Násik ..	763,333	818,499	10,187	11,321	1·3	1·3	102	128	
6	Ahmednagar ..	541,003	541,524	592	374	0·10	0·06	..	.	
7	Poona	476,090	476,645	2,154	3,805	0·45	0·79	63	11	
8	Sátára	440,867	438,684	4,062	993	0·92	0·22	..	..	
9	Sholápur	177,693	177,716	487	222	0·27	0·12	..	.	
10	Surat..	477,930	477,913	433,616	432,583	90·7	90·5	12	43	
11	Panch Mahális ..	212,240	200,109	9,014	10,133	4·2	5·06	1	2	
	Total ..	5,571,508	5,544,689	1,225,268	1,151,542	21·9	20·7	1,786	3,651	

127. In the two forest divisions of Thána greater attention was paid to fire conservancy; and owing to the energetic co-operation of the Collector, the mámlatdárs, police and other district officers, have all been enrolled in the cause of the suppression of forest fires. The round guards were directed to make an immediate report by means of a post-card to the Collector, direct, on the occurrence of fire within the forests of their rounds, so that the revenue and police officers might be at once warned to assist inquiry and make investigation into the origin of a fire, with a view to the detection and punishment of the offender. In the case of fires caused wilfully the main object is shikár, fire being used to remove the undergrowth and leaves, and thus facilitate the pursuit and slaughter of game. The preparation of ash manure in fields, adjoining forest boundaries, has led to the burning of much forest lands in different directions. The damage done by fire in a closed coupe is incalculable, and 15 of the South Thána division fires burnt "closed forest," traversing 755 acres out of a total of 11,112 acres: in one case the fire was caused by smoking rats out of holes, and two of the offenders were caught and punished with rigorous imprisonment for 20 days.

128. In the East Khándesh division fire conservancy has received specially careful attention, and had it not been for a fire, which occurred in the Sátpuda forests in the Yával range, about a fortnight before the close of the dry season,

through the carelessness of privilege-holders, and which raged for nine days, owing to a strong gale of wind blowing almost all the time and to the impossibility of extinguishing it—no fire trace will arrest a roaring fire in the Sátpudas in a gale of wind, burning vegetation such as the pith of reeds has been known, to be carried the better part of a mile in the air and to ignite the grass where it has eventually fallen,—whereby about 20,000 acres were burnt, the result of fire protection during the year in this division would have shown a marked improvement upon the preceding year. It is pleasing to be able to record that the forest villagers in this division turn out readily and cheerfully to fight a forest fire: 150 men were working for over a week against the Yával-Sátpuda forest fire.

129. The Collector of Khándesh notes: "It is to be regretted that the one great fire towards the close of the year in Yával should have raised the area burnt so high, for excluding that there was a very fair decrease in the total number of fires as compared with the preceding year."

130. In the West Khándesh division, notwithstanding all the preventive measures taken, forest fires have again been general and their range has been greater than ever. The chief cause of fire is the carelessness or indifference of villagers, who go into the forests to cut and take in the exercise of their conceded privileges; and the Collector, in forwarding the report, records that "privilege-holders are no doubt to blame for most of the fires in the Sátpudas."

131. One hundred and twenty-five forest fires were reported in the Násik division, of which 32 were in the Dindori range, 31 in Igatpuri, 15 in each of the Báglán and Násik ranges, 13 in Kalwan, 5 in Málegaon, 4 in Peint and the same number in the Nándgaon range, 2 in the Chandvad and Sinnar ranges, and one in the Yeola and Niphád ranges respectively: and in 50 cases the person by whose action the forest was fired was detected and punished. Some of the fires spread from the fire traces while the latter were being burnt.

132. Only 29 forest fires were recorded in the Ahmednagar division, and they traversed comparatively small areas, which aggregate 374 acres in all, or a little more than half a square mile: no fire traces are burnt in this district, and no expenditure is incurred upon fire conservancy, because forest fires are practically unknown.

133. No forest fires occurred in the Indápur, Sirur, Bhimthadi and Bárámati ranges of the Poona division, but 3,804 acres were burnt in the other seven ranges, the largest proportion being in the Junnar range, where 1,284 acres were fired. The Reserved Forests, the grass of which is made available to the Commissariat Department, suffered greatly from fire, 733 acres having been burnt; this is attributed to the contractor's servants purposely firing the forest in order to destroy evidence of having defrauded their masters by removing grass or permitting it to be grazed down.

134. The forests of the Sátára district are practically free from fires. Nine hundred and ninety-two acres only were burnt during the year by 36 different fires; in twenty-one of these cases the incendiary was discovered; ten of these cases were compounded under Section 67 of the Forest Act, as there was no evidence of intention or of criminal negligence; in six cases children caused the fires, and consequently nothing was done to them. Forest guards burnt 344 miles of fire traces and in three places the fire got beyond their control, and burnt small areas inside the forests which were being fire-traced: in five ranges there were no fires, in two other ranges less than one acre was burnt, and the largest extent of fires was in the Pátan range with 503 acres burnt.

135. In seven forest reserves of the Sholápur division fires appeared during the year, burning 222 acres, the total acreage of the forest division being 177,623; four ranges were free from fire; 5 acres only were burnt in Mádha, 84 in Karmála and 133 in Bársi.

136. The Surat division contains forests which are very much subjected to burning, for grass and under-growth are luxuriant under a heavy rainfall, and the forest tribes are wild, and resort to firing the forest in order to destroy cover for dangerous wild animals, to assist in the killing of game and vermin, and to facilitate the collection of mhowra flowers naturally shed by the trees in the

forests. In the Dángs a selected area of about 2,000 acres round a prominent land-mark, Bilia Dongar, where young teak of excellent growth is very plentiful, was again protected against fire successfully through the assistance and co-operation of the pátil and villagers of Zaria, Boripada and Gira. The pátils were rewarded with gifts of turbans, which were presented to them at the Darbár of the Dáng Rájas, and money payments were made to villagers for their services. In the Mandvi range great improvement is apparent in fire conservancy, as traces were burnt round all the reserves by the forest guards, and the forest villagers co-operated cheerfully in extinguishing fires, and in guarding against their visitation; except for one fire, which burnt 14 acres, the forests of the Bulsár, Párdi, Chikhli and Valod tálukas enjoyed complete immunity from fire.

137. Forest fires were too prevalent in the Panch Maháls division during the year as the following statement shows:—

Range.	Reserves fired.	Area of these Reserves.	Acreage burnt.
Godhra	24	23,680	5,498
Kálol	6	7,657	1,435
Hálol	5	8,397	1,895
Dohad	6	10,801	1,150
Jhálod	3	935	154
			10,132

10,132 acres in all were burnt, which is a slightly larger proportion than of the preceding year; all the reserves were fire-traced for protection.

5.—GRAZING AND FODDER GRASS.

138. The grass and grazing receipts of the Northern Circle have continued to increase during the year of the report as will be seen:—

Year.	Amount.	Year.	Amount.
	Rs.		Rs.
1878-79... ...	42,629	1885-86 ...	2,32,650
1879-80... ...	64,613	1886-87 ...	2,37,126
1880-81... ...	1,00,443	1887-88 ...	2,48,855
1881-82... ...	1,41,765	1888-89 ...	3,27,165
1882-83... ...	1,64,444	1889-90 ...	3,42,037
1883-84... ...	1,97,963	1890-91 ...	3,61,983
1884-85... ...	2,25,853	1891-92 ...	4,35,923

139. The following statement shows the revenue of the year of the different divisions under the several heads:—

No.	Division.	Valuable Kurans of Fodder Grass to be cut and removed.		Open to Grazing.					Auction Grazing.		Grass given to Commissariat Department.		Area closed to Grazing	Miscellaneous Grazing Revenue.	Total Grazing Revenue.
				Area.	Fee.		Free.								
		Area.	Revenue.		Cattle.	Revenue.	Cattle.	Value.	Area.	Revenue.	Area.	Money value.			
		Acres.	Rs.	Acres.		Rs.		Rs.	Acres.	Rs.	Acres.	Rs.	Acres.	Rs.	Rs.
1	North Thána ...	7,904	12,165	321,985	2,411	1,018	127,827	23,963	...	...	...	...	33,616	572	13,755
2	South Thána ...	1,089	200	258,237	9,476	4,430	122,327	41,000	...	...	...	...	23,413	308	4,938
3	East Khándesh ...	20,324	19,159	717,609	196,571	59,736	7,221	2,170	...	...	...	...	38,167	6,138	85,033
4	West Khándesh ...	20,823	7,079	788,088	432,385	91,450	1,310	300	...	...	...	...	223,472	3,334	1,01,863
5	Násik	33,635	16,588	574,935	201,813	49,206	91,192	24,841	...	...	...	...	209,879	1,802	67,596
6	Ahmednagar ...	6,307	764	341,782	132,473	29,069	13,337	2,371	4,532	3,022	5,393	8,629	175,649	6,435	39,290
7	Poona	48,676	31,286	231,668	63,773	12,401	72,221	18,806	41,841	2,131	19,496	34,500	122,334	1,555	47,373
8	Satára	46,648	27,709	255,248	112,198	14,314	137,073	33,915	...	...	...	...	136,776	2,760	44,783
9	Sholápur	29,018	12,021	48,401	30,986	8,325	10,958	2,866	...	...	...	...	40,443	3,344	23,690
10	Surat	...	...	24,011	2,689	739	1,000	250	...	...	...	...	7,079	257	996
11	Panch Maháls ...	16,983	1,355	175,700	17,597	5,231	47,000	13,200	494	19	...	...	1,642	1	6,606
	Total ...	231,462	1,28,326	3,737,664	1,202,372	2,75,919	631,466	1,63,687	46,867	5,172	24,889	43,129	11,012,970	26,506	4,35,923

140. The comparison between the receipts of 1891-92 and of the preceding year is as under :—

No.	Division.	1890-91.	1891-92.
		Rs.	Rs.
1	North Thána... ...	7,232	13,755
2.	South Thána	7,320	4,938
3	East Khándesh ...	53,527	85,033
4	West Khándesh ...	81,275	1,01,863
5	Násik	56,639	67,596
6	Ahmednagar	35,688	39,290
7	Poona	55,116	47,373
8	Sátára	39,144	44,783
9	Sholápur	18,756	23,690
10	Surat	976	996
11	Panch Maháls ...	6,310	6,606
	Total ...	3,61,983	4,35,923

141. In the North Thána division the revenue from the sale of grass in the Reserved Forests and portions of Reserved Forests, the grass of which is sold for cutting, was much better than of the previous year. A much smaller area was however sold as the list of these properties has been carefully revised by the Collector and Divisional Forest Officer, when the less valuable ones were given to grazing instead : grass in closed forests was sold when purchasers were forthcoming, and cutting of grass could be allowed without risk of injuring young forest growth : where the grass of coupes closed for reproduction of timber could not be sold, it was given to villagers for free cutting under certain regulations ; the tall and luxuriant grass in these coupes is a powerful source of danger to the plant-life in case of fires. The special grass areas sold covered 6,517 acres, and the receipts came to Rs. 11,197½ ; while by sale of grass in closed coupes Rs. 1,573 were obtained. The new grazing rules which had been introduced experimentally into the Bassein range during 1890-91 were continued during the year of the report, but were not applied to any other range. The amount of grazing fees collected in the Bassein range was only Rs. 18, and 12,862 head of cattle were given free grazing in the forests. Sixteen buffaloes and 1,026 cows were brought from outside into the district for grazing in its forests, and paid fees amounting to Rs. 727½. For the size of this division, the total amount of grazing fees collected during the year, Rs. 1,018-12-0, is very small indeed.

142. In the South Thána division the new grazing rules were introduced into two tálukas, Kalyán and Bhiwndi, for trial, with indifferent results. The following table shows the differentiation of the receipts derived from grass and grazing during the year :—

Number.	Range.	Number of Fee Cattle grazed.	Amount of Fees.	Sales of Grass.	Total.
			Rs. a. p.	Rs. a. p.	Rs. a. p.
1	Sháhápur	837	519 15 0	*Nil.*	519 15 0
2	Khardi	3,146	1,879 0 0	*Nil.*	1,879 0 0
3	Mokháda	1,516	338 7 0	5 0 0	343 7 0
4	Murbád	466	291 11 0	44 9 9	336 4 9
6	Kalyán	355	209 15 0	383 8 0	593 7 0
6	Bhiwndi	2,512	678 14 0	*Nil.*	678 14 0
7	Karjat	374	310 2 0	75 10 0	385 12 0
8	Khálápur	290	201 15 0	*Nil.*	201 15 0
	Total ...	9,476	4,429 15 0	508 11 9	4,938 10 9

143. Swine and goats are excluded altogether from the South Thána forests. The closed compartments into which no cattle are allowed are those which have come under the axe for the exploitation of timber, and are now shut up for the regeneration of the same; and in addition thereto of 1,089 acres in the villages of Shil, Kawse, Gholeghar and Dysar in the Kalyán range, which are closed for five years for the improvement of their forest growth, altogether 23,413 acres are closed; while the maximum permissible is one-fourth of the total forest area of the division, or about 94,324 acres. In the isáphat forest of Khatioli ten compartments have been worked out of the forty, and are now closed to cattle.

144. The receipts of the East Khándesh division from grass and grazing have increased all round as will be seen :—

	1890-91.	1891-92.	Increase.
	Rs.	Rs.	Rs.
Fee grazing	34,142	59,736	25,594
Grass sales	19,379	25,297	5,918

145. The new grazing rules have been applied generally, and the sales of grass have been more productive owing to keen competition; 38,167 acres of forest are closed to cattle in this division, and of this portion 17,843 acres are only temporarily closed. But there has been a large increase in the number of cattle impounded in this division although the grazing revenue has increased largely, the reason being that cattle-owners refuse to buy grazing permits, saying that they do not want to graze their cattle in the forests, but they subsequently either wilfully trespass their cattle or permit the cattle to trespass. The villagers in the Bhadgaon petha have been conspicuous in such misconduct.

146. The new grazing rules were in force throughout the West Khándesh division, and the total number of cattle grazed on payment of fees was 432,385; there has been a decrease of 47,000 in the number of sheep, of 20,000 in calves, and 18,000 in goats, which is not regretable; on the other hand, the number of large cattle has increased by 15,000 and horses by 4,000. Only 1,310 head of cattle were free grazed within forest during the year, owing to the privilege of free grazing having been stopped by Government Resolution No. 7477 of the 21st October 1890, for one year, on account of the frequent and extensive forest fires. Forest villagers take grass from the open forest free of charge, and in the ranges north of the Tápti river, this privilege is enjoyed by all Bhils and other wild tribes resident in the tálukas; out of a total forest area of 1,021,360 acres, 788,088 acres were open to grazing, and 223,472 acres were closed, while the grass on 20,827 acres was sold for cutting. The Collector has recorded the following remarks :—

"It is satisfactory to find that the number of cattle impounded has fallen from 45,821 to 24,500, nearly 50 per cent., and as the forest establishment would appear to have been if anything more on the alert, it may be taken that the people are getting to know the reserves better and are more careful. The number of cattle grazed on payment has decreased by some 64,000 head, mainly sheep, and this is somewhat extraordinary, as the free grazing was almost nil. It would have been interesting to know why the decrease in sheep took place; have the Thilaris ceased coming into the districts? The Collector has not received any complaints from them on the score of grazing, and is at a loss to understand the reason for the decrease."

147. The grazing revenue of the Násik division has likewise gone up; by sale of grass from cutting Rs. 4,500 and by grazing fees Rs. 6,500 have been realised in excess of the receipts of the preceding year. The new grazing rules are enforced throughout the district, with the exception of the Peint táluka. By order of the Collector the open forests were closed against cattle from the 1st June to the 15th August, and against sheep up to the 15th September, with the exception of a block of 23,000 acres in the Nándgaon range, which was opened to sheep from the 1st August. It is reported that the forest villagers were delighted at the order to exclude sheep until the middle of September, as these animals had been in the habit of grazing the new grass down as fast as it grew in the open forests into which they are admitted and which in previous years had been available to them from the 1st June, and the large cattle in these villages had suffered in consequence. The villagers co-operated most willingly in keeping sheep out of the forest during the close time.

148. In the Ahmédnagar division the grazing rules were in force, and the revenue exceeds that of the previous year by Rs. 3,589 ; 132,473 head of cattle, of which 40,803 were sheep, were grazed within the forests, an area of 57,301 acres being assigned specially for the latter animals; four forest reserves, representing 727 acres 10 gunthas, the grass of which is estimated to be worth Rs. 1,163-10-2, are made available to the Remount Department for grazing; and nine forest reserves, with an area of 4,666 acres, and grass worth Rs. 7,466 annually, are placed at the disposal of the Commissariat Department for purposes of grass supply.

149. The deferred rainfall in the Pooña division retarded the growth of grass and diminished the crop, so that the prices obtained for the valuable kurans, covering 48,676 acres, for the hay supply of the district, were less than of the preceding year, and amounted to Rs. 31,286. The receipts, Rs. 12,401, from fees were also less, owing probably to a greater number of cattle passed as "agricultural;" 72,221 of such and of milch cattle enjoyed free grazing in the forests. The Commissariat Department requisitioned for and secured a larger forest area than of last year to be made available to them for the grass-supply of the Government horses and cattle in Poona and Kirkee, and for the slaughter animals of the Aligaum farm, so that 19,496 acres were assigned to them for grass-supply free of charge; the estimated value of this concession being Rs. 34,500. In the villages along the western ghâts grazing is sold by auction, and is not worked on the permit system; 41,841 acres were treated in this way, and produced a revenue of Rs. 2,131-9-0. The forest areas opened to fee as well as to free grazing represent 231,668 acres, while the closed area for purposes of forestry amounted to 122,834 acres, but owing to the absence of pasturage outside the forests, and to the scarcity of grass in the country, grazing was made available to the villagers by order of the Collector in the Rahu Reserved Forest of the Bhimthadi range, and in the closed forests of 20 villages in the Indápur range.

150. The new grazing rules were worked in the Sátára division; the grass on 39,791 acres was sold for Rs. 22,472-12-9 for grazing of cattle; on 6,857 acres the grass was sold for cutting, realising Rs. 5,236-9-1, while 255,248 acres were open to fee and free grazing, the fees bringing in Rs. 14,313-14-0. The portions closed for forestry aggregated 136,777 acres, and by sale of grass for cutting in parts of it Rs. 2,760 were obtained. The free grazing areas within the forest reservations before the grazing rules were applied amounted to 114,957 acres, but under present arrangements the "free cattle" numbering 137,073 had the run of 255,248 acres. Although the year was a bad one for grass and pasturage the revenue derived from grass and grazing has increased, which speaks favourably of the improvement of the grass in quality as well as in yield: but it is somewhat remarkable that despite the complaints of there being no good grazing anywhere outside of the forest boundaries, grazing permits were not taken by their owners for no less than 414,455 head of cattle in forest villages alone; this is very significant when it is remembered that in every village grazing permit books are in the hands of the village officers who are ready and eager to issue grazing permits, if only because a percentage of the collected fees is paid to them, and when it is remembered also that very large numbers of cattle trespass into the closed forests and into the open forests without permits, of which a fraction only is driven to the cattle pounds.

151. The new grazing rules were brought into force in the Sholápur division in the year of this report for the first time, and the differentiation of grazing was as under:—

(1) Fee grazing on permits in open forests.

(2) Free grazing on permits in open forests to agricultural and milch cattle, in villages which have contributed gáirán to forests:

(3) Grazing on special areas; valuable kuran sold by auction.

The season for grazing extends from the 16th August to the 31st March; and the close season against grazing, during which period cattle are excluded from the open forests, extends from the 1st April to the 15th August. It is reported

that the new grazing rules have been introduced and worked in the Sholápur Division with absolutely no complaints received against them from the people of the district. There are 341 villages containing forest reserves in this division, and of these 61 only have contributed gáirán, measuring 11,720 acres to forest; 48,401 acres of forest were however open, during the year, to the grazing of fee and also of free cattle. The scale of fees charged for local cattle was—

Buffaloes	... 0 8 0	for the grazing season of 7½ months.
Cow, ox, horse, mule or donkey ...	... 0 4 0	
Sucking animals	... free	
Agricultural and milch cattle ...	... free	

152. The cattle of professional graziers were required to pay double the above rates; outside cattle, *i.e.*, cattle brought from outside the district, treble the above rates; sheep and goats are not allowed into any portion of the Sholápur forests; 10,958 animals consisting of 3,097 cows, 6,394 bullocks, 481 calves and 986 buffaloes were given free grazing permits; while 30,936 animals consisting of 1,894 buffaloes, 28,408 cows and bullocks, with 618 calves and 66 horses took out grazing permits on payment of Rs. 8,325-8-0 in fees; the valuable kurans representing 29,018 acres were sold by auction for grass cutting to be followed by grazing; five reserves only of these being closed to cattle. The total area of absolute closure in the district for purposes of forestry amounted to 40,443 acres, and the total grass and grazing revenues came to Rs. 23,690: as the rainfall was both short and untimely, and in consequence the rabi crops failed in a portion of the district, causing a scarcity of fodder outside the forest reserves, the cutting and closed forests were, under the order of the Commissioner, C. D., thrown open free to local cattle in all the ranges except Bársi after the rains; and later on as the season advanced in response to requisitions made by the Collector, some of the plantation numbers were also opened to cattle free of charge; and no doubt considerable benefit resulted to hungering cattle, and indirectly to the agriculture of the district, by this judicious concession to drought and scarcity of fodder grass.

153. The grazing rules worked smoothly in the Surat Division also; the Collector has remarked that so far as the resident population is concerned he has heard no reasonable complaints, and the rules seem to have worked well. The revenue from grass and grazing increased from Rs. 600 to Rs. 996; more animals entered the forests for grazing, *viz.*, 2,689 against 1,482 of the previous year, and an exceptionally brisk demand sprung up for cutting and removing grass from the closed forests. The close season extended up to the 31st August.

154. In the Panch Mahâls Division the old grazing arrangements were continued, and the new rules were not introduced during the year. All the forests of the division have been divided into grazing blocks with one-third of the total forest area closed for purposes of forestry against cattle, 17,597 head of cattle were provided with grazing in the open forests during the year.

155. The following statement will show the number of cattle of different kinds in the several Collectorates of the Northern Circle, according to latest returns:—

No.	Collectorate.	Cows and bullocks.	Buffaloes.	Horses.	Asses and mules.	Sheep.	Goats.	Camels.	Elephants.	Total.	Remarks.
1	Thána	307,413	75,392	1,481	41	3,203	39,878	...	...	427,408	
2	Khándesh	694,216	169,122	23,630	8,086	34,573	151,290	...	...	1,080,917	
3	Násik	473,332	68,191	13,955	...	103,592	137,793	...	...	796,863	
4	Ahmednagar	649,717	38,885	21,758	6,105	307,796	222,854	...	...	1,247,115	
5	Poona	455,986	68,516	11,624	4,662	224,654	113,172	...	...	878,614	
6	Sátára	490,900	150,333	14,334	2,714	379,387	97,085	4	...	1,134,757	
7	Sholápur	437,161	70,688	12,386	3,651	263,318	113,688	9	...	900,901	
8	Surat	256,431	86,378	1,587	...	29,121	69,579	...	...	443,096	
9	Panch Mahâls	250,176	36,792	2,995	2,459	6,280	30,995	44	...	329,741	
10	Ahmedabad	294,055	135,083	6,780	...	36,204	56,135	...	...	528,257	
11	Kaira	223,136	212,630	2,709	5,861	7,783	44,987	191	1	497,298	
12	Broach	90,793	51,661	2,624	1,525	14,020	24,904	64	...	185,591	
	Total ...	4,623,316	1,163,671	115,863	35,104	1,409,931	1,102,360	312	1	8,450,558	
	Total for 1890-91 ...	4,651,456	1,173,940	113,418	28,846	895,270	621,373	356	2	8,274,342	
						789	681				

156. It will be seen that there is an increase on the whole in the number of cattle, and especially in that of the sheep and goats in almost all the Collectorates of the Northern Circle.

157. Considering the short time they have been introduced, the grazing rules have worked very fairly, for they do not exact heavy fees; and with time and perseverance they will work smoothly as the people fall into their ways, and the village officers understand that the issue of grazing permits to the cattle which enter the forests to graze without having taken out permits previously, is preferable treatment of illicit grazing in *open forest* than the impounding of such cattle, unless they are goats and sheeps.

6.—FENCING.

158. The fencing of exploited coupes with wire was continued in the two ranges of Dáhánu and Bassein of the North Thána Division during the year, 12,212 running feet of wire fencing having been erected, and a large quantity of wire was obtained for employment during the coming season; coupes require to be fenced on the lower boundaries in order that cattle may be kept out, but the work is expensive.

159. In the South Thána Division a wire fence 2,565 feet in length was erected round the Bendikon coupes of the Khardi range which were felled in 1888, 1890; and an additional and barbed wire was put round the Sháhápur coupes.

160. In the Niphád range of the Násik Division 260 feet of the Naitala forest reserve were fenced with Sabri (Euphorbia tirucalli) at a cost of Rs. 13-3-6.

161. Wire fencing was put up round the Arangaon, Valunj and Limpangaon Reserved Forests in the Ahmednagar division, 829 acres being enclosed by 48,080 running feet of fencing; three lines of wire were used, the first being one foot above the ground, the second two feet, and the third 3½ feet, the central wire on some portions being barbed wire. Teak posts were used as stobs or uprights, and were sunk 2½ feet in the ground, and were placed at distances of 10 feet. The cost of this fencing came to Rs. 6,367-10-6, or about Rs. 4-6-7 per 100 running feet; 15,093 lbs. of old telegraph wire ranging 600 lbs. to the mile have been received from the Telegraph Departments for further fencing purposes. In addition to the above, all the bábul compartments, which had been exploited before the rains, were enclosed by thorn hedges, and 100 bulbs of aloe (agave americana) were planted out by each forest guard along the boundaries of his forests, free of charge.

162. In the Poona Division wire fencing was erected along forest boundaries, as under :—

(1) 8,640 running feet at Dongargaon round a bábul reserve on the bank of the Indráyani river in the Haveli range;

(2) two miles at Lonikálbhor in the Haveli range completing the 12 miles of wire fencing of the hill-side Reserved Forest overhanging the Southern Marátha Railway line;

(3) 24,638 feet round bábul compartments at Kedgaon, Párgaon and Handalwádi in the Bhimthadi range.

8,648 lbs. of old wire were purchased from the Telegraph Department, and 2,500 teak and junglewood posts were obtained from the forests of the Haveli range and also from the South Thána division.

In addition to the above 8,740 feet of aloe and thorn fence were put up in the Indápur range, 29,294 feet of thorn fencing in the Bhimthadi range, and a small quantity in the Haveli range round exploited coupes in the bábul forests.

163. No wire fencing has yet been attempted in the Sátára division, but during the year 11,100 feet of aloe fencing were planted round small plantations, and along the edges of coupes.

164. Aloe fencing has been undertaken to the extent of 32,984 feet in the Sholápur, Mádha, Pandharpur and Sángola ranges in the Sholápur division, at a cost of Rs. 208-10-6; however useful this kind of fencing may be to define boundaries, and for the protection of the latter, it is useless against trespassing cattle, which make gaps in it where they do not find them ready made. The only reserve at present protected by a wire fence is at Karmála, where about 424 acres have been enclosed; the results from the protection thus secured are very obvious to even the most casual observer; a quantity of strand and barbed wire has been obtained for enclosing other reserves, but there is a difficulty in getting teak posts.

7.—NATURAL REPRODUCTION.

165. There is nothing new to add under this heading to the reports of former years. Natural reproduction is very vigorous everywhere in the Thána district whether from seed or from stool; an enormous number of seedlings, however, are killed annually by fires or by cattle, whilst many die in the hot weather; given protection from fire and grazing and mischief, the forests everywhere may be trusted not only to maintain themselves, but to increase in value. The regrowth in the closed compartments which were recently coupes under exploitation is generally vigorous and very luxuriant, so that the regeneration of the forests and their enhanced condition at the end of the rotation now being pursued may be expected with confidence. The new growth in the coupes is principally coppice, but a fair number of seedlings come up: the latter, however, suffer more than the former when fire overruns the compartment. The seeding in the Thána forests was very bad during the year, especially in the case of teak trees; the heads of flowers were numerous on the teak trees, but in most cases became barren, and often where drupes had formed, it was found that the seeds contained had not ripened. A great deal of damage was done to the teak by caterpillars during the rains and up to the second week of November, when they suddenly disappeared; these caterpillars were of small size, greyish black, with a brown head, and were in such myriads that the leaves of all the teak trees in the district were reduced to skeletons of net-work, the caterpillars eating all the parenchyma of the leaves, and leaving only the fibres intact. The effect of this visitation on the trees, especially on young seedlings and coppice shoots, the tender leaves of which were especially toothsome to the caterpillars, must have been disastrous upon the increment of wood, besides weakening the trees; it is a noticeable fact that the trees broke out into new leaf much earlier in 1892 than ordinarily. A partial seedling of the manvel bamboo took place during the year, chiefly in the Máhim range, and seeds have been collected for broad-casting in forests, where the bamboo is not. On the whole, there is no reason to complain of the condition and progress of natural reproduction in the forests of the Thána Collectorate; and if protection continues to be good, even as good as it is now with such an excellent Forest-Collector as Mr. Sinclair in charge of the district, the commercial value of the forests will augment marvellously before the current revolution of the working plans has run its course.

166. In the Khándesh district natural re-production by seed and shoot is retarded in a great measure by the want of complete fire protection and by heavy grazing. In places where these hostile agencies are disappearing reproduction by seed especially is conspicuous, and it is as certain as day succeeds night that where fires are kept out and grazing is regulated under proper control, natural improvement of the forests asserts itself. In the Sátpudás, in the Sahyádri forests, in the Sátmálas, in the Jámner teak belt, in the Central forests south of the Tápti which were considered to be nearly beyond redemption a few years back, where these conditions of protection have been secured, reproduction by seed is, as a rule, good, and the forests are perceptibly better, blanks having filled and decreased in spread, and fine upright saplings with clean cylindrical stems showing themselves prominently in healthy race for the overhead light. In the bábul forests the exploited coupes, when closed, reproduce themselves quickly if protection is efficient. Some old coupes in the Transpurna forest were traversed by fire in the hot weather of 1891, for the first time after 10 years, and a lamentable destruction of seedlings and saplings is the result: it was intended to open these compartments to cattle after the rains of 1892, but now

they will have to remain closed for a further term of years. In the Anjan (Hardwickia binata) forests self-sown seedlings are very scarce at the best of times owing to the Anjan seeding so irregularly and at long intervals ; for the last three years not a tree has seeded. Shoots from stools are generally of good growth where, and so long as, goats are excluded ; but the Thilaris who bring enormous flocks of sheep have many goats, and where these animals go into a forest there they work destruction of ligneous vegetation, more particularly of the young seedlings and shoots which are not defensible by being beyond the reach of their teeth. Goats attack the bark of the older and taller trees and thus injure them vitally.

167. In the Deccan Collectorates of Násik, Ahmednagar, Poona, Sátára and Sholápur, the rainfall has not been generally favourable to natural reproduction in the forest areas, but notwithstanding this there has been considerable advancement in the development of old trees, and in progressive afforestation of the tracts under reboisement where cattle are strictly excluded. In open forests the herds of cattle trampling the soil stamp out plant life, defeating all efforts of nature in regeneration, while sheep and goats destroy all ligneous vegetation not beyond their reach upon all the lands to which they are allowed access.

168. The rainfall in the Surat division was plentiful and favourable; about 120 inches fell in the Dángs. The high forests here are worked chiefly for large timber, and trees have of necessity to be felled when they have attained a considerable age, when their power of reproduction by coppice shoots has almost disappeared, and in consequence few and feeble shoots are to be seen among the few which have sprung up from the stools where fellings have been made in recent years ; this is particularly noticeable in going through the forests round Khubita and Sodmal. But regeneration by self-sown seeds, though retarded by fires, is by no means unsatisfactory, and the greater portion of the Wasurna Dángs and the valleys of Pimpri Dáng, and in many other localities from whence large timber had been extracted during the past decade, are now densely stocked with teak saplings and poles of a most promising character : when shifting cultivation is confined within fixed bounds and demarcated forest areas are closed against its entry, and at the same time fires are kept out, the forests of the Dángs will progress with great strides in the path of improvement and of enhanced wealth. In the Gandeva coupe felled during 1890-91 teak has coppiced very vigorously and densely, new shoots having topped 8 feet in one season. In the Mándvi range also natural reproduction has been good, and in riding through the forests it is very pleasing to notice old sites of cultivation now forest covered with seedling growth of valuable timber, with large trees fringing their borders, teak predominating.

169. There is nothing special to chronicle in respect of the Panch Maháls division, but it may be stated generally that where fires and ovine cattle are kept out, there the forests are improving steadily. A very great advancement was noticed by the Conservator to have taken place, since the time of his former visit, in the forests of the Kalol range on the eastern frontier; and in the forests upon the slopes of Pavagad in the Hálol range, which are now well stocked with saplings.

170. There is scarcely any land in Western India which cannot be made to grow fodder bushes, fuel scrub and good grass with care and perseverance, so long as men and cattle are excluded while the ligneous vegetation is in its infant stage, and the roots of grasses and other plants are working actively in the formation of soil ; when there is a fair growth on the ground bovine cattle can be admitted for a short period yearly when the demand for grazing is the chief consideration, but the strict exclusion of goats and sheep for a long series of years is of absolute necessity. In cases where the forest lands brought under plantation originally contained good soil, there the growth of timber is not a long process ; for example, the bábul forests in the Sholápur division which have been created while the writer of this report has been Conservator of Forests of the Circle containing the Sholápur division, are now being divided into blocks, with 40 compartments each, for working, and coupes will be sold for exploitation next season, which will produce not less than Rs. 10,000 in receipts. Hill slopes in the Deccan come on more slowly, but hundreds of square miles in the

Khándesh, Násik, Ahmednagar, Poona, Sátára and Sholápur divisions which have been treated since 1879 for reboisement, are now showing a promising growth of saplings: the Bársi hills in the Sholápur division being a conspicuous example. But the undulating uplands or máls in the Deccan are the toughest to deal with, and though fodder bushes and scrub fuel bushes will appear upon them, it will occupy the better part of 50 years to cover them with timber.

8.—ARTIFICIAL REPRODUCTION.

171. In the Thána Collectorate operations are confined to—

(a) old plantations and kurans.

(b) the exploited coupes (closed forests).

(c) acquired occupied lands within the boundaries of forest reserves such for instance upon the catchment of the Tánsa lake.

Forest guards planted up patches within their own beats as part of their regular work. Seeds were collected by guards and by hired labour.

172. In the North Thána division 7,204 acres were under cultural treatment, transplants from surrounding forests being moved into the exploited coupes of the season. Sandalwood was planted in every range on a small scale in specially selected and prepared sites. The total cost of the works amounted to Rs. 855. In the South Thána division 225 acres, outside the coupes recently closed were planted up, and 122 acres of plantation were made by forest guards in their respective beats: some of these were doing very well in the hot weather, especially in the Koshimshet, Sakurlé, Chargaon, Sháhápur and Umgaon forests.

173. In the East Khándesh division 56 khandis 2 maunds and 9 seers of seeds were sown over 3,020 acres of Reserved Forest, of which 573 acres were treated by dibbling, 599 acres of bábul reserves by full ploughing, 1,823 acres were pitted over and sown, and 25 acres were broad-casted. Mr. Desái reports the results in the South Tápti ranges to be unsuccessful, but in the North Tápti forests to be promising.

174. In the West Khándesh division 72,200 acres were broad-casted over with seeds and upon 297 acres dibbling has had recourse to, while 5 acres in a bábul reserve were ploughed and sown. As the rains were heavier than usual, the seedlings made a fair start, but later on a large number of them withered away. Seedlings which had been grown in pots in the Dhulia and Dahivel nurseries were planted out in the forest areas with fair success.

175. The rains were scanty and late in coming to the Násik district, and the plantations did not do so well in consequence as could be desired; many seedlings died during the hot weather. Each forest guard planted up his five acres in the forests of his beat, sandalwood plantations were started on a small scale in each range, seed having been obtained from Coorg, but a large proportion did not germinate, and many plants did not survive the hot weather.

176. In 1890 a plantation was started at Páthardi at the foot of the Lena hill in the Násik range, about 6 miles from the city of Násik: its site is of an old tank, the dam of which must have been swept away many years ago, and it is full of deep alluvial soil. This plantation has been watered from the old Budhist caves carved in the low scarp that runs across the north face of Pándao-Lena hill, about half way up or over 600 feet above the plantation. All the caves contain cisterns cut out in the rock to hold water; these cisterns have small mouths and spread inside into a large quadrangular hollow, and are full of water. At the outset a tin half-round pipe about 700 feet in length was fixed from the caves to the plantation, and a man used to go up to the caves and pour water into the tube on the top, and another man caught it at the bottom in buckets: but last year it was suggested that the use of a syphon to bring the water down would be of advantage, and Mr. Betham has now fitted one which works admirably; 50 feet of iron piping 1 inch in diamater fitted at each end with a brass cock was obtained from Bombay at a cost of Rs. 13, and a large iron tank purchased for Rs. 64 has been placed in the plantation, and 400 feet of additional tin piping costing 9 annas per running foot had to be fixed to the old gutter, and now a forest guard goes up to the cave and turns a cock which allows the water to run down the pipe and fill the iron tank 4′ × 4′ in the plantation, which is

flourishing with a very fine growth of bábul, bamboo, ain, moho, tamarind, teak, siras and many other seedlings.

177. The Ahmednagar division also had cause to complain of the rainfall which was inimical to its plantations; 92 acres and 14 gunthas representing the exploited coupes in the bábul reserves upon the banks of the large rivers of the district were thoroughly ploughed up and sown with Sind bábul seeds, with very satisfactory results; 2,861 acres of hill slopes in the western ranges of Akola and Sangamner, including all the exploited coupes of the season, were dibbled over with teak and other seeds, at distances of 10 feet apart; the results, however, are not yet fully seen; over 245 acres seeds of tarwad (Cassia auriculata) were dibbled at distances of 10 feet apart in the Reserved Forests, which are open to sheep grazing, as sheep will not touch this plant, the bark of which provides excellent material for tanning purposes. Seeds of the nimb (Azadirachta indica) were sown inside of and under the protection of thorny bushes in shallow pits over 2,818 acres of forest in all the ranges; this tree is very hardy and grows well out of the centre of euphorbia and other armed bushes, enjoying in youth the protection thus afforded; 2,168 acres of bábul reserves were sown plentifully broad-cast with bábul seeds, but the want of rain delayed their germination; 5,500 pits were dug by hired labour on wages in the midst of forests along the ghâts in the Akola range, and were sown with seeds of the hirda (Terminalia chebula): while 145,275 pits, distributed over all the forest beats in the division, were dug and sown up with seeds by forest guards, who collected 133 khandis of seeds, and who broad-casted 12,695 acres of forests in all the ranges with the quantity of seeds remaining after the pits prepared by them had been sown up. The regular watered plantation at Dongargan is doing very well; it had been fully stocked in previous years, but the Hanmantgaon plantation was not in such good condition. Small plantations of sandalwood were attempted in each range, but with indifferent results.

178. The forest guards of the Poona division collected 177 khandis 12 maunds and 11 pounds of seeds, and they prepared with their own hands 129,500 pits in which seeds were sown, and they likewise broad-casted seeds over 993 acres, all without expense to Government. All the exploited coupes in the bábul reserves representing 404 acres 21 gunthas were ploughed and sown, and 46,151 pits were made in the hill reserves by hired labour, and were sown with mixed seeds. In the nursery attached to the range forest office in the city of Poona 1,000 date plants and 2,000 sandal plants are doing well, and there are likewise upwards of 50,000 teak and other seedlings in small pot, being got ready for planting out upon the hill sides overhanging the Southern Marátha Railway in the Haveli range. The sandalwood experimental plantations, with seeds obtained from Coorg, did not succeed. But Sind bábul seeds, sown in all the river bank bábul reserves, are making a promising show. The rainfall was inimical, but where cattle and man are kept out there nature restores ligneous vegetation to the soil and forces it to grow despite climatal conditions being unfavourable.

179. Mr. Fagan, Deputy Conservator of Forests, came to the Sátára district as Divisional Forest Officer during the year of this report after an absence from the district of 15 years, and in his administration report he records that he has seen some very good plantations, the result of continued labour and careful protection during the past 15 years; and they show more than anything else how trees of valuable species can be brought on to land that previously contained nothing, whatever it might have had originally in the shape of forests. The plantations at Borgaon, Dare Budruk, Kodoli in the Sátára range, at Chachegaon in Karád, at Mandrul in Pátan, Aitodeh in Válva, at Lingmála, Pádli in Koregaon, besides many others testify to the unceasing and successful endeavours of the department to grow trees under extremely unfavourable conditions. The year of the report was an exceptionally bad one for plantations in the Sátára district; the rainfall was irregular and below the average. The sandalwood nurseries suffered from the drought, and plantations which are supplied with water from the Public Works Department canals had their supply cut off. Nearly one hundred rupees were expended in clearing out springs and deepening them when the water ran short in the Vellu, Borgaon and Aitodeh plantations. 20,844 acres of hill-sides within Reserved Forest were sown broad-

cast with seeds, the greater portion of it by forest guards, who collected personally much of the seeds; and 1,182 acres and 35 gunthas of hill-sides were likewise treated by forest guards in a more detailed manner, for they dug pits and sowed seeds in them.

180. In the Sholápur division the smaller kinds of seeds are broad-casted, whilst the larger kinds, such as ain, teak, &c., have been dibbled into the soil by paid labour. Each forest guard in charge of a beat is required to prepare 100 pits for mangoes 2′ × 2′ × 2′, and 3,600 pits 1 foot in diameter and 1 foot deep for other seeds such as bábul, nimb, bor (Zizyphus jujuba), tamarind, &c., the sowings being effected just before the setting in of the monsoon rains. By expenditure costing Rs. 437-15-8, of which hired labour came to Rs. 169-11-2, a total of 3,787 acres were operated over, 3,553 acres and 18 gunthas of it having been treated by broad-casting, and 235 acres and 26 gunthas by dibbling. The cultural operations of beat guards, which were performed without any cost to the State, are to be seen in the table below:—

No.	Range.	Area pitted.	Area dibbled.	Area broad-casted.	Total.
		A. g.	A. g.	A. g.	A. g.
1	Sholápur	58 14	39 30	1,141 7	1,239 11
2	Bársi	6 29	.....	176 0	182 29
3	Mádha	48 0	.....	764 18	812 18
4	Karmála	62 0	20 4	589 0	671 4
5	Pandharpur	20 0	15 0	969 36	1,004 36
6	Sángola	30 0	30 0	1,722 0	1,782 0
7	Málsiras	31 0	35 0	2,413 0	2,479 0
	Total ...	256 3	139 34	7,775 21	8,171 18

The quantity of seeds collected by the forest guards in the division measured 78 khandis 17 maunds and 9½ seers, while 27 khandis 13 maunds and 12 seers were purchased, and 2 khandis 26 maunds and 13 seers were imported: so that in addition to the natural shedding of seeds by the trees standing in the forests operated upon, 109 khandis 2 maunds and 6 seers of mixed seeds were sown by human agency. Careful supervision is required to be maintained over the forest guards, both in the collection of seeds and in the sowing of seeds. It may be taken that, practically, the seeds mature on the trees in April and May, and they have to be under the soil before the 1st June, when seeds are bought they are measured before the pátil and the kulkarni of the village, who testify to correct weight and to proper price paid and charged. The results of the majority of the sowings have been all that could be wished in the Kamthi Budruk Reserved Forest; the bábul seedlings from the beat guards broad-casting came up quite as thickly as a grain crop, and that in a year when the rainfall has been admittedly untimely and scanty. Bábul and other forests, which have been created since the days of the Deccan famine, are being worked now by the axe for the local market, and away in the far east in the Bársi range there is a very promising young mixed forest coming on upon the slopes of the low hills on the northern frontier, more particularly at Yedshi where the growth is especially close and vigorous; the teak tree has re-appeared and is growing beautifully in goodly numbers, after it had been so long absent that the oldest villager knew it not by sight and could not fix a name to it.

181. Though the season was excessively wet in Gujarát, the rains held off completely during June in the Surat division, whereby planting operations were much delayed. Exploited coupe No. 1 of the Gandeva Reserved Forest was sown up in pits 1 foot deep and 6 feet apart, with seeds from the Dángs; seedlings locally raised were also planted out in it, teak occupying every alternate pit; and in the month of November 1891, the whole surface was carpeted with seedlings and shoots; blanks were planted up in reserves in all the ranges by transplants of naturally sown seedlings from surrounding forests by hired labour, and every forest guard had to plant one acre in his beat

without outside help, and in addition thereto to broad-cast seeds over a larger area. The results are satisfactory. The Goema Reserved Forest now exhibits a very interesting spectacle to a forester: its site was barren waste land in the knowledge of the writer of this report 23 years ago, and it was then sown up chiefly with bábul; and seedlings of teak, of terminalia, anogeissus, dalbergia, &c., raised in nurseries, were planted out, subsequently among the bábul; the latter grew up to marketable size, and has been cut out at different times after it had been overtopped by the teak and junglewood saplings, which are now entirely suppressing the few remaining bábul trees in the struggle for the survival of the fittest, while the receipts already obtained by the sale of the exploited bábul wood has more than paid the expenses of creating a very rich little forest estate.

182. One hundred and fifty-eight maunds and 13 seers of seeds of teak and other trees were dibbled by forest guards during the rains of 1891 over 373 acres of blanks within the Reserved Forests of the Panch Maháls division. 89 acres were added to the Vejalpur plantation where 26 maunds and 6 seers of seeds were sown, and blanks inside the reserves in all the ranges were sown and planted up by hired labour. The seeds germinated very well and in the early part of the cold weather the seedlings, especially the bábul in the Eastern Kálol block raised from seeds imported from Sind, were looking healthy, but failure of the late rains tried the growing plants. The Conservator found the forests generally well filled with young growth, except in the very exposed portions, where cattle puddle the ground in the rains, and its surface hardens under the subsequent action of the sun into the similitude of sun-dried bricks.

183. This statement shows the total expenditure incurred on plantations in the several divisions of the Northern Circle with the areas treated during the year under different methods:—

No.	Division.	Regular Plantations.				Cultural Operations.				Total Cost.	Remarks.
		Area in Acres.				Area in Acres.					
		On 1st April 1891.	Added.	Excluded.	On 31st March 1892.	On 1st April 1891.	Added.	Excluded.	On 31st March 1892.		
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Rs.	
1	North Thána ...	2,215	10	...	2,225	15,860	7,204	...	23,064	792	
2	South Thána ...	390	225	171	444	4,284	122	...	4,406	789	
3	East Khándesh ...	...	...	...	...	15,849	3,020	...	18,869	75	
4	West Khándesh ...	42	...	25	17	20,930	265	...	21,195	605	
5	Násik	...	...	...	...	8,188	865	394	8,659	1,236	
6	Ahmednagar... ...	142	...	...	142	11,098	8,756	...	19,854	2,024	
7	Poona...	...	408	...	408	39,937	1,187	...	41,124	1,644	
8	Sátára	3,194	17	...	3,211	114,786	1,364	...	116,150	666	
9	Sholápur	...	...	...	...	59,430	3,789	...	63,219	436	
10	Surat	...	...	...	...	1,006	265	...	1,271	853	
11	Panch Maháls ...	113	123	...	236	449	160	...	609	259	
	Total ...	6,096	783	196	6,683	291,817	26,997	394	318,420	9,379	

9.—EXPERIMENTS WITH EXOTIC TREES.

184. Nothing new has been attempted in this direction during the year. The casuarina can scarcely be termed an exotic in the present day, as it is well established and has naturalised in the flora of Western India. The casuarina plantations along the sea shore in the Dáhánu and Umbargaon ranges of the North Thána division are doing fairly well. A quantity of seeds obtained from Kárwár in the Kánara district were sown in a nursery at Tithal near Bulsár, in view of making plantations upon the available waste lands on the sea shore in the neighbourhood. The nursery was well screened against the south-westerly winds, which blow with violence during the monsoon, and the seeds germinated very profusely; when they were a month old they were transferred to pots made by tying together face to face two ordinary roof tiles; and at the end of the year 1,255 plants, about one foot high, were in the nursery. If the plantation at Tithal is a success, as there is every reason to believe it will be,

many miles of the sea-board in the Surat district, at present unutilised drifting sandy wastes, can be converted into profitable casuarina plantations.

185. The Egyptian date palms are not doing well anywhere, and the Australian eucalypti do not find the Bombay Presidency so favourable to their growth as the Nilgherries apparently are. It is not desirable for the Forest Department to waste money upon the experimental cultivation of exotics when the local flora contains such very numerous kinds of beneficent, beautiful and valuable trees.

10.—EARLY THINNINGS, REMOVAL OF INFERIOR SPECIES, CUTTING OF CREEPERS, &c.

186. The forest guards in most divisions are provided with a Maráthi koita, a kind of sickle or curved knife, wherewith to cut creepers; and this they are required to undertake in the forests of their beats without any paid assistance.

187. A species of loranthus, a parasitic shrub, is found growing on the branches of many trees of various kinds in the Thána forests: it affects chiefly teak trees, and attaches itself to the leading shoot as well as to side branches, and its roots penetrate the bark to the cambium layer with which they contract an organic adhesion so as to derive nourishment from the sap of the tree. The loranthus impoverishes and eventually kills the limb upon which it has established itself; it flowers the greater part of the year, and its berry is round about the size of a pea: birds and the natural dropping of the seeds cause its spread. The Collector of Thána drew the attention of the Conservator to the prevalence of loranthus in the Thána forests, and measures are being undertaken to exterminate this pest by cutting out all trees, which have been attacked by it in the coupes of the season, and by searching all closed forests (exploited coupes) annually with a view to lop off the limb of any tree which may have provided a home for the loranthus.

188. The eradication of prickly-pear, Opuntia dillenü, natural order Cacteœ, from Reserved Forests in several divisions, has been carried on with vigour. This pestiferous plant, which is a native of Brazil, and now so common about most of the Deccan villages where it provides a safer refuge for wild pig, snakes and vermin of sorts in its dense impenetrable tangled masses, which form an unbroken cover over acres of ground, was introduced into Western India, so native tradition explains, by a Marátha Sirdár Dábhádé by name, who brought a few seeds of it in his palanquin from Delhi, and his gift has been as noxious to the Deccan as was the shirt to Hercules. It is a very valuable plant for the reboisement of the barren and denuded uplands of the Deccan, for it establishes itself upon the most stoney soilless places, and it refuses to be turned out when it has once taken root, save at great cost and labour; filth and debris are arrested by it and accumulate round it, and its own roots open out the pores of the earth and form soil. The natives call it the nágphana nivadung; armed plants such as the euphorbia nerrifolia, nivulia, &c., are likewise generally termed "nivadung" in the vernacular, with Sabri and Thor added to denote their species: but the prickly-pear is called the nágphana nivadung because its obvate, flat, fleshy joints resemble the expanded hood of the cobra. It is a very common mistake among officials and others to speak, and to write, of the Sabri, euphorbia nerrifolia, as cactus, which it has no claim to be, and thus confusion is caused. The prickly-pear is botanically called the cactus indicus by Roxburgh in his Flora Indica. The opuntia dillenii is enormously aggressive with its very great power of spreading, for the joints strike root wherever they may find themselves carried and dropped by man, or by the wind or by water, and the seeds are deposited in all directions by birds, which eat the fruit, and when once this plant has been introduced upon a boundary line as a living hedge, an office it discharges very effectively, it very soon invades the property it was originally brought to protect. New growth, seedlings and shoots, come up here, there and everywhere, and as it is very gregarious it soon occupies land to the exclusion of superior vegetation and of grasses. It has to be cut down limb by limb, levelled to the ground, then the roots have to be dug up, and the whole carcass buried under several feet of earth; this is the most

effective method of eradicating it; simply cutting it down, drying the severed parts in the sun, and burning them, which is a costly proceeding, will not always destroy the persistent vitality of the plant. The nine-lived cat would have no chance against the prickly-pear in a competition against death by violence. In the East Khándesh division, where there is not fortunately much prickly-pear, the beat guards dug it out wherever it showed itself. In the Násik division an area of 670,248 square feet within the Raolas Reserved Forest in the Niphád range was cleared of prickly-pear at a cost of Rs. 103-5-0. In the Ahmednagar division 16,179 cart-loads of prickly-pear were removed from 366 acres 26 gunthas of bábul forests in different ranges, and the material was buried in nálas and rifts under two feet of earth, the cost of the operation amounting to Rs. 1,034-8-0.

189. In the Poona division ten gangs of six men each have been engaged partly as famine work for varying periods in the Haveli, Indápur and Bhimthadi ranges in digging out prickly-pear and trimming the hedges of this interesting plant, wherever it was getting beyond bounds. 73½ acres were cleared entirely and 7,131 cart-loads of the prickly-pear were destroyed. Forest guards removed all young and fresh growth from the forests of their beats. Rs. 1,960-1-3 were expended in the division.

190. Prickly-pear was removed from the Burlé bábul reserve in the Tásgaon range by hired labour, at a cost of Rs. 198-12-6; and creepers were severed and killed by forest guards in the forests of the western ghát in the Sátára division.

191. All the forest guards of the Sholápur division are equipped with bill hooks to keep their reserves free of creepers and also to remove freshly intruding prickly-pear, and paid labour has been employed where the forest guards were unable to cope with the evil. This statement shows the work performed :—

No.	Ranges.	Square Feet.	Cost.
			Rs. a. p.
1	Sholápur	30,290	154 14 0
2	Mádha	18,074	86 1 6
3	Karmála	69,600	45 3 6
4	Málsiras	27,546	29 13 6
	Total ...	145,510	316 0 6

192. The forests of Khánbor and Singalkas in the Dángs were treated for creeper cutting; all the valuable timber trees which are of exceptionally promising growth were freed from the embraces of the large climbers, which were abundant and obstructive: the operation cost Rs. 7-9-0.

11.—COMMUNICATIONS AND BUILDINGS.

(*a*) Roads and Bridges.

193. The Divisional Forest Officer, West Khándesh, spent a small sum of Rs. 14-8-6 in repairing the Kalámbari road in the Pimpalner range, and the Divisional Forest Officer, Surat, executed the usual repairs to the main road in the Dángs extending from Waghai to near Dhuda, a distance of 36 miles, and to the branch road that ascends the Sarwar plateau from Pimpri and descends into the Purna valley at Kalibel, and from thence goes *viâ* Sajukpada on the Gira across the Rupgad hills, a distance of about 26 miles. The crossing of the Kapri river near Bibabari was cleared of boulders and made smooth and easy for the passage of timber laden carts. All the bridges in the lower Dángs, the planking of which had become rotten, worn out and unsafe, and the masonry work of which was in bad condition, underwent thorough repairs, and the bridge at Kasadpáda near Pimpri on the main timber road, which had been burnt down in the hot weather, was rebuilt.

194. The following is a brief account of the new works and repairs to existing roads, &c., undertaken during the year by the Public Works Department at the expense of the Provincial Service Budget, the original projects having been started either at the instance of, or with the concurring opinion of, the Forest Department :—

In the Thána district the Dáhánu-Jawhár road, 26 miles long, has been completed, practically, during the year, and will be extended to the Násik district; Rs. 12,690 have been expended upon it, making a total outlay of Rs. 2,09,519 on the road. The Váda-Shirghát road is a section of a projected road from Máhim and the Pálghar Station on the B. B. & C. I. Railway to cross the Sahyádri mountains by the Shirghát, and then to connect with the Ghoti Railway Station on the G. I. P. Railway beyond Igatpuri in the Násik district. The first 34 miles, Máhim to Váda, will be a local funds road, and will serve several forest blocks, the timber from whose coupes will travel to the Manor bandar and to the B. B. & C. I. Railway. The last 30¼ miles will be a provincial road; 21 miles of the road from Máhim east have been completed and are open to traffic, and the earth-works and culverts are finished on a further section of 8 miles. From Váda to the Shirghát the whole line is completed, and the road is already showing a heavy traffic from Váda to Parali, and some traffic up the ghát, but as soon as the through road to Ghoti is completed, it will be a busy thoroughfare; Rs. 43,007 have been expended on the road during the year of the report, making a total expenditure of Rs. 1,73,047. The earth-work of the forest roads through the Medwan and Nanewli khinds has been completed, and four wooden topped culverts have been constructed: the joining roads leading up to the khinds on both sides have been lined out, and earth-work on them is in progress. To make the roads useful the length of the joining roads will be extended from Manor to Shanvárpáda, about 4½ miles, and a branch of about 2½ miles to each of the khinds in place of the 6 miles originally proposed. Out of an estimate of Rs. 6,821, Rs. 200 have been expended on the Medwan khind during the year, and out of an estimate of Rs. 5,465, Rs. 999 have been spent on the Nanewli khind road. Mr. K. G. Desái, L.C.E., Executive Engineer of Thána, has been very helpful to the Forest Department in furnishing them with plans and estimates of roads and buildings, which have been projected from time to time in connection with the forest administration in the Thána Collectorate; and this officer has very fully earned the acknowledgments of the Forest Department for his ready and skilful assistance, and his ungrudging co-operation on all occasions, while the forest depôt houses, and the lines of traffic constructed by him afford evidence of the care and high professional knowledge with which he has directed these several works.

Mr. G. Owen Dunn, Executive Engineer of the Khándesh district, has made a commencement of the ghát road, leading down the Jakrai-bári from the Pimpalner táluka into the Dángs. The Dhuda Ghát about 12 miles in length in the Dángs has been surveyed and plans and estimates are under preparation. The road from Sháháda to Dondaicha, which carries a large timber traffic, has been in active progress, and 11 miles of the 17 are now open to carts.

The road from Hasteh to Barhe in táluka Peint of the Násik district, which will serve the exploitation of timber from State forests in Peint, has been in progress during the year, and a line of road between Ganeshgaon and Wasali in the Násik range, which will bring firewood into the city of Násik from the Ganeshgaon forests, has been planned and estimated.

In the Ahmednagar division the road from Randha to Samrad in the Akola range, the length of which is to be 9 miles and which is to pass the forests of Gohira and Bhundardareh, and is nearly parallel to the Prawara river, has been partially completed; and the road from Jámgaon to Kotul, which will open out forests in the Kotul valley, and is nearly 10 miles in length, passing over the Paibai Ghát, and through very hilly portions of the country, and crossing the Mula river near Kotul, has been opened to traffic, and a portion of it has been murumed where it is in black soil; a masonry dam has been built on the down stream side in the Mula river crossing.

In the Poona district 3 miles of the Ghore-A'mbegaon road, which will open out teak forests in the A'mbegaon range, has been finished during the year; and 2 miles have still to be constructed to lead the road into A'mbegaon.

In the Surat district a survey for a railway along the Tápti Valley towards the Khándesh district has been made this season by the B. B. & C. I. Railway Company, and when this line is constructed, it will be of very great benefit in opening out the Dángs.

(*b*) Buildings.

195. The following statement shows in detail the works constructed during the year at the cost of the Provincial Services Budget, by the Public Works Department, at the instance of the Conservator of Forests under sanctions given by him from the discretionary grant of Rs. 2,000, which had been placed at his disposal under the orders contained in Government Resolutions No. 170A—703 of 25th April 1891, and No. 428A—1723, dated 13th October 1891, in the Public Works Department :—

No.	Executive Officer.	Name and Locality of Works.	Amount sanctioned.		
			Rs.	a.	p.
1	Executive Engineer, Poona ...	For making improvement to the Range Forest Office at Paud	126	0	0
2	Do. do. ...	For certain alterations and additions to the Range Forest Office, Haveli ...	59	0	0
3	Do. Khándesh.	For concrete floors to the Range Forest Office at Navápur .	18	0	0
4	Do. do. ...	Do. do. Sindkheda.	18	0	0
5	Do. do. ...	Do. do. Sháháda ...	9	8	0
6	Do. do. ...	For providing stone paving to the Range Forest Office at Páchora ...	94	0	0
7	Do. Sátára ...	For providing doors to the window of Range Forest Office at Koregaon ..	9	0	0
8	Do. do. ...	For making additions and alterations to the roof of the Range Forest Office at Dahivadi...	242	0	0
9	Do. do. ...	For providing a bonnet to the window of the Range Forest Office at Wái ...	7	0	0
10	Do. do. ...	For new glazed shutters to the windows of the Range Forest Office in the New Adálat	77	0	0
11	Do. do. ...	For additions and alterations to the Range Forest Office, Sátára ...	62	0	0
12	Do. do. ...	For cloth ceiling to the Range Forest Office at Shirála	38	0	0
13	Do. Kaira ...	For providing a concrete flooring and plank ceiling to the Range Forest Office, Jhálod	88	0	0
14	Do. do. ...	For making a flooring to the Range Forest Office at Kálol	64	0	0
15	Do. Thána ...	For providing ceiling to the Range Forest Office at Mokháda.	115	0	0
16	Do. do. ...	Do. do. Karjat ...	113	0	0
17	Do. do. ...	For providing teakwood ceiling and concrete flooring to the Range Forest Office at Khálápur	76	0	0
18	Do. do. ...	For providing additions and alterations to the Range Forest Office at Máhím ...	125	0	0
19	Do. do. ...	Do. do. Umbargaon.	13	0	0
20	Do. do. ..	Do. do. Dáhánu ...	163	0	0
21	Do. do. ...	Do. do. Bassein ...	153	0	0
22	Do. do. ...	Do. do. Thána ...	76	0	0
23	Do. do. ...	Do. do. Váda ...	145	0	0
			1,890	8	0

196. The following additional works have been undertaken by the Public Works Department during the year at the cost of the Provincial Service Budget.

Forest depôt houses, brick built, on a sanctioned plan and scale, have been built as under, but have not yet been handed over to this department:—

In North Thána Division.

Range.	Place.		Cost.		
			Rs.	a.	p.
Mahim ...	Pálghar ...	Railway Station, B. B. & C. I. Railway	1,083	0	0
Do. ...	Manor ...	A timber bandar on Vaitarna River ...	1,083	0	0
Dáhánu ...	Sawta ...	Tidal bandar	1,083	0	0
Umbargaon ...	Sanján ...	Do.	1,083	0	0

In South Thána Division.

Range.	Place.		Cost.		
			Rs.	a.	p.
Sháhápur ...	Wásind ...	Railway Station, G. I. P. Railway ...	1,173	0	0
Do. ...	Atgaon ...	Do. ...	1,061	0	0
Kalyán ...	Wángai ...	Do. ...	1,173	0	0
Khardi ...	Kasára ...	Do. ...	1,061	0	0

and a depôt house has been sanctioned for the Budlapur Station, but it has been difficult to obtain a site as the land here belongs to the Inámdár of Kulgaon; however the G. I. P. Railway Company have been asked to allow the depôt to be built within their station fencing.

A new office and seed-room for the Range Forest Officer of Taloda was completed and handed over to this department, and the adoption of the old fort at Dhadgaon in the Akráni range of the West Khándesh division to fit it for use as a Range Forest Office was in progress and nearly completed. Special accommodation for a Range Forest Office according to the prescribed plan has been provided in the new kacheri built at Erandol in East Khándesh, which has been completed during the year. The Range Forest Office at the Nandurbár kacheri being in a very shaky condition and inconvenient in many respects, has been undergoing repairs and alterations. A paved floor has been made to the Range Forest Office at Páchora and concrete floors to those at Sindkheda, Sháháda and Navápur, where white ants were found to be troublesome.

In the Násik division the Executive Engineer Mr. B. R. Hatherley constructed for this department during the year an office for the Range Forest Officer, Nándgaon, according to the prescribed form, at a cost of Rs. 1,490 against a sanctioned estimate of Rs. 1,630; and commenced a forest depôt house at Karanjali in the Peint range at an estimated cost of Rs. 1,407, against which Rs. 856 have been spent during the year; it will be completed in 1892-93.

197. Considerable funds had been provided in the Budget of the Surat division for the construction of several rest-houses for Forest Officers in different parts of the Dángs, but most of the money lapsed because skilled labour to construct the houses could not be obtained in the Dángs and could not be induced to come into the Dángs in sufficient numbers, for fear of the climate, and no contractors would come forward; consequently of the four bungalows proposed to be built, only one was undertaken departmentally: a commencement being made in the month of February, when a few carpenters and masons were persuaded to come from Chikhli in the Surat district: the site of this rest-house is a commanding position on the top of the Sarwar plateau; the house was unfinished at the close of the year. The existing rest-houses at Waghai and Pimpri in the Dángs underwent the usual repairs.

198. The following Statement exhibits the expenditure incurred by the Divisional Forest Officers in the Northern Circle in building rest-houses,

temporary depôt houses, forest guards' huts, mándavs or sheds for temporary depôt establishments, &c. :—

No.	Division.	Amount.		
		Rs.	a.	p.
1	North Thána	747	9	0
2	South Thána	2,315	8	0
3	East Khándesh	154	0	0
4	West Khándesh	888	5	0
5	Násik	494	3	0
6	Ahmednagar	1	6	6
7	Poona	75	5	0
8	Sátára	36	1	0
9	Sholápur	.....		
10	Surat...	1,304	7	4
11	Panch Mahális	270	9	6
	Total ...	6,287	6	4

199. The expenditure shown above against South Thána includes the cost, Rs. 1,871, of a bungalow with out-houses purchased at Tánsa from Messrs. Glover & Co., contractors of the Tánsa lake, under sanction of Government Resolution No. 4171 of the 18th June 1891, for a first rest-house.

(*c*). Other Works.

200. The water in the Dángs although obtainable from pure springs is everywhere polluted and rendered unwholesome by the dirty habits of the villagers, and this is possibly one of the causes of the frequent sickness of forest officials and of the population residing in the Dángs. With a view to remedy this evil to some extent, wells with a frame work of wood were built at the undermentioned places in the Dángs at the cost stated :—

	Rs.	a.	p.
Linga	11	5	0
Malgaon	10	0	0
Gundohol	10	0	0
Umaria Mahál	10	0	0
Jaran	6	0	0
Gulkund	10	0	0
Amthava	15	0	0
Gondal Vihir	10	0	0
	82	5	0

Thus rough wells of good pure spring water were provided in eight different directions within the Dángs for the small expenditure of Rs. 82-5-0. Outlay of this kind carefully directed cannot fail to be highly profitable to the State in the health of its servants employed in malarious localities, and to be beneficial to the local population.

CHAPTER IV.

OUTTURN AND WORKING.

I.—DEPARTMENTAL OPERATIONS.

(1).—Timber.

201. The outturn in cubic feet of timber exploited departmentally from the forests of the different divisions of the Northern Circle, with the cost incurred

and the amount realised by its sale during the year under report, as compared with the results of the year preceding, is given in the following statement:—

No.	Division.	1890-91.					1891-92.				
		Timber in the rough; logs.	Timber in the rough; poles.	Miscellaneous.	Cost.	Receipts.	Timber in the rough; logs.	Timber in the rough; poles.	Miscellaneous.	Cost.	Receipts.
		C. ft.	C. ft.	C. ft.	Rs.	Rs.	C. ft.	C. ft.	C. ft.	Rs.	Rs.
1	North Thána	.....	1,788	...	204	213	.....	10,839	...	2,346	2,175
2	South Thána	.....	58,824	...	1,714	8,686	.....	17,247	...	937	2,532
3	East Khándesh ...	.....	21,300	...	1,455	13,947	.....	19,532	...	1,339	10,448
4	West Khándesh ...	28,768	28,456	29,073	3,296	36,376	11,003	66,997	67,812	4,158	48,985
5	Násik	40,066	.....	...	348	2,667	.....	26,802	...	206	3,103
6	Ahmednagar	.....	179,156	319	1,627	9,509	.....	35,098	92	1,261	7,977
7	Poona	.....	51,678	...	3,369	26,012	.....	50,785	...	3,088	26,130
8	Sátára	.....	21,060	...	1,385	8,189	.....	20,041	...	1,470	13,618
9	Sholápur	1,310	220	...	24	361	931	.....	...	5	90
10	Surat	65,850	58,514	...	31,305	54,949	104,020	72,645	...	14,715	48,136
11	Panch Mahals... ...	13,292	4,368	8,594	1,340	3,238	.....	24,464	951	996	4,197
	Total ...	155,286	420,364	37,986	46,067	1,64,147	115,954	344,450	68,855	30,571	167,391

202. The departmental fellings in the North Thána division were made in five coupes out of 23 unsold coupes of the year, not with the object of adding to the revenue of the division, but to give effect to the orders of Government contained in their Resolution No. 650 of the 26th January 1891, which direct that the unsold coupes should be exploited departmentally in the interest of the people of the district; but the result was that there was absolutely no demand for the material felled in two coupes out of the five; this material consequently remained unsold; while the material in the other three coupes fetched poor prices, which barely repaid the expenses of exploitation.

203. The departmental fellings in South Thána during the year were made for the same reason, *viz.*, in consequence of the coupes having remained unsold; but in view of the failure of such sales in the year preceding, only two coupes were selected for departmental fellings, and these were in the Kalyán táluka. In addition to this, trees remaining on foot along the Tánsa Duct strip (90 feet broad) were felled at the instance of the Bombay Municipality, and were sold by auction for Rs. 215.

204. The revenue authorities, on being referred to on the point, informed that it was not necessary in the interests of local supply to exploit departmentally the remaining unsold coupes, as local supply would be satisfied without the material of these coupes being felled: and the Collector intimated to the Divisional Forest Officer that it was not necessary to work any other coupes departmentally than those determined.

205. The treatment of the forests does not prescribe the exploitation of the coupes on the system of working adopted because the timber contained within the coupes and to be felled is mature, and its time for removal has arrived; the coupe is put into the market chiefly to meet the demands of local supply; the trees felled are not mature; on the other hand, many of the trees felled are diseased and bad, and require to be removed to make room for a better growth; but taking any coupe as a whole, nothing is lost to the proprietor by not cutting out the trees other than the standards in the year of its proper turn under the revolution: what may appear to be a loss of income at first sight, is more than made up by the annual progressive increment of wood giving enhanced value to the coupe in a future year.

206. The difference in outturn and receipts in the East Khándesh division was due to the fact that a larger quantity of teak timber was extracted from the Jámner teak numbers in the year 1890-91 than in the year under report; while the prices of the material at auction sales, which are regulated by the condition of the cotton harvest of the district, were poor owing to the failure of the cotton crop, and consequently there was a decrease of Rs. 3,499 upon the revenue of the preceding year.

207. The increase in outturn of timber and in receipts in the West Khándesh division was, to a great extent, due to extensive clearances of timber upon the cultivation areas within defined Bhil settlements in the North Tápti ranges,

and upon revenue waste and occupied lands, which were required to be freed of timber growth as quickly as possible.

208. In the Deccan divisions of Násik, Ahmednagar and Poona, the departmental operations were undertaken on the same lines as usual, and the variations in cost and receipts are so very small that they call for no special explanations.

209. In the Sátára division departmental operations of timber were undertaken in all the ranges except Tásgaon where the timber is bábul, and Mahábáleshvar where the forests are ever-green with the jámbul tree predominating. The material felled secured better prices at auction sales than during the year before, and hence the increase of Rs. 5,429 in the revenue from this source.

210. No departmental timber operations of importance were undertaken in the Sholápur Division, where workable forests of bábul, created within the last 20 years, have been differentiated into blocks, which are sub-divided into compartments, one of which is formed into a coupe annually for sale standing to contractors and purchasers.

211. The small difference in cost and receipts of the Surat division is explainable by the fact that no departmental fellings of green teak were undertaken in the Dángs, on account of there being a large stock on hand from the preceding year. 1,316 khandis were carted in addition from Khubita to the Wagrech and Vejalpur depôts by contractors on behalf of the department, at the rate of Rs. 4-6-0 and Rs. 5-2-0 respectively, the total cost amounting to Rs. 5,764. Owing to the persistent combination of traders, the auction sales of timber in the Wagrech depôt did not succeed again this year as well as was expected, and consequently the greater portion of the sales had to be effected retail; the different logs of timber in the depôt were marked with their prices, so that intending purchasers might select such lots as they required. In this manner the total sales from the depôt amounted to 2,218 khandis of $12\frac{1}{2}$ cubic feet, which realised Rs. 30,990, giving a very satisfactory and high average rate of Rs. 14 per khandi or Rs. 56 per ton of 50 cubic feet, and returning a considerable profit.

212. Taking the selling rate *in situ*, in the Dángs, at Rs. 7 per khandi at the outside, and adding Rs. 4-8-0 for conveyance, &c., to the coast, the prices in the Dángs and at the coast compare in the proportion of Rs. 11-8-0 to Rs. 14, or Rs. 2-8-0 per khandi in favour of the Wagrech depôt. The quantity, 2,218 khandis, disposed of from the coast depôt, multiplied by this difference, *viz.*, Rs. 2-8-0, gives a net profit of Rs. 5,545 during the year, as the gain by opening the coast depôt at Wagrech near Billimora, which possesses a tidal bandar upon the estuary of Káveri and Ambiká rivers, and a railway station on the B. B. & C. I. line. The outlay of Rs. 1,455 in purchasing land for this depôt in a more suitable situation to serve the conveniences of the trade has therefore been fully justified.

213. In Mándvi, too, the department had to contend against a combination of the local wood-dealers, who have their head-quarters at Kadod; to defeat which a great portion of the timber felled departmentally had to be floated down the Tápti river to Fulpada near Surat, as was once done during 1889-90, to a temporary sale depôt, where it was disposed of by auction successfully. With the coast depôt established at Wagrech for the sale of Dáng timber, the department is now in a better position to hold its own footing against combinations of timber merchants, and to realise its annual revenue, which used to be a matter of uncertainty formerly. The clearing of coppice wood undergrowth within a radius of one mile round the town of Mándvi was also undertaken during the year at a cost of Rs. 878 and the timber sold for Rs. 3,963. A small increase in outturn and receipts of the Panch Maháls division as regards departmental operations is due to better prices at auction sales.

(2).—Firewood.

214. The outturn in cubic feet of firewood, including the loppings of teak and other trees cut departmentally in the several divisions of the Northern

Circle, together with the cost incurred and the amount realised, as compared with the results of the preceding year, is given in the following statement:—

No.	Division.	1890-91.			1891-92.		
		Firewood.	Cost.	Receipts.	Firewood.	Cost.	Receipts.
		Cubic Feet.	Rs.	Rs.	Cubic Feet.	Rs.	Rs.
1	North Thána ...	6,675	58	281	79,602	633	415
2	South Thána ...	76,237	126	523	...	...	2
3	East Khándesh ...	302,760	2,078	11,868	404,910	2,999	14,230
4	West Khándesh ...	146,435	2,005	2,986	385,562	1,836	11,014
5	Násik	251,829	1,119	3,831	227,984	1,150	3,795
6	Ahmednagar ...	19,223	24	759	154,818	...	755
7	Poona	206,203	1,271	4,393	81,081	356	1,796
8	Sátára	69,798	781	2,210	244,920	1,343	4,230
9	Sholápur	17,749	141	1,140	15,130	100	1,293
10	Surat	...	...	...	18,491	...	501
11	Panch Maháls ...	278,974	...	3,396	210,700	...	3,718
	Total ...	1,375,888	7,603	31,387	1,859,198	8,417	41,749

215. No departmental fellings of firewood were undertaken in the two forest divisions of Thána. In the East Khándesh division the increase in outturn, cost and receipts is due to the clearing of disforested lands at the foot of the Sátpuda hills, under Government Resolution No. 3563, dated 25th May 1891, in the Revenue Department. The departmental fellings of firewood in the West Khándesh division were undertaken in two ranges, Dhulia and Nizámpur; while in other ranges firewood operations were confined to loppings of trees felled for timber. The increase of Rs. 8,028 is due to the fact that all the firewood that was on hand from last year was sold during the year, there being a large demand for it. The production, cost and receipts from firewood in the divisions of Násik and Ahmednagar during the year are pretty nearly the same as those of last year, and call for no remarks. The decrease in the Poona division is due to less firewood being exploited departmentally, coupe sales taking the place of departmental exploitation; while the increase in Sátára is due to a better market for firewood. Practically no departmental fellings of firewood were undertaken in the divisions of Sholápur, Surat and Panch Maháls, but the loppings and branches of trees felled for timber were classed as firewood and sold as such. No departmental operations were undertaken as regards bamboos and sandalwood.

(3)—Other Minor Produce.

216. The departmental collection of hirda, the fruit of terminalia chebula, comes under this sub-head; and the following statement will exhibit the results during the year in the divisions of North and South Thána, Násik, Ahmednagar, Poona and Sátára, as compared with those of the year preceding:—

No.	Division.	Yield.		Cost.		Receipts.		Remarks.
		1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	
		K. m. lbs.	K. m. lbs.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
1	North Thána	35 0 0	70 3 0	.....	497 8 0	650 0 0	1,770 4 0	
2	South Thána	71 23 16	143 7 0	501 15 2	980 8 0	2,029 10 10	4,249 8 0	
3	Násik	49 2 0	49 0 0	28 11 3	21 8 5	1,453 11 8	1,431 0 0	Credited under II e.
4	Ahmednagar	102 13 6	100 3 20	758 14 3	851 8 9	3,350 13 2	3,100 0 0	
5	Poona	151 2 26	265 5 8	... ...	.....	2,914 0 0	6,080 13 1	Do. do.
6	Sátára	675 1 20	741 10 13	4,418 13 4	5,096 11 11	16,308 15 2	19,409 9 2	
	Total ...	1,084 15 12	1,369 1 13	5,708 6 0	7,447 13 1	26,607 2 10	36,041 2 3	

217. The system of collecting hirda departmentally was reverted to in the North Thána division with good results, the collection being made by wild tribes as usual. In the South Thána division hirda was collected departmentally as in the year before, and although the hirda crop was only an average one, still the revenue derived was the highest on record, owing to better prices ruling the auction sales. A small quantity of hirda was collected departmentally in the Násik division in the Peint range, at a cost of Rs. 9-4-0, which realised Rs 30-8-0;

in the other ranges, it was collected on the share system as usual. The small decrease in outturn and receipts in Ahmednagar call for no remarks.

218. In the Poona division hirda was collected on the share system, while in the Sátára division it was gathered departmentally; and the results are very satisfactory in both divisions, owing to a greater demand for this myrobalan of commerce, and in consequence to the better prices attending the departmental auction sales.

II.—REMOVAL OF PRODUCE BY PURCHASERS.

(1).—TIMBER.

219. The outturn, in cubic feet, of timber removed from the forests of the several divisions of the Northern Circle, by consumers and purchasers at their own expense, is exhibited in the following statement, with the amounts realized, as compared with the results of the previous year :—

No.	Division.	1890-91.				1891-92.			
		Timber in the rough; logs.	Timber in the rough; poles.	Miscellaneous.	Amount realized.	Timber in the rough; logs.	Timber in the rough; poles.	Miscellaneous.	Amount realized.
		C. ft.	C. ft.	C. ft.	Rs.	C. ft.	C. ft.	C. ft.	Rs.
1	North Thána ...	...	1,125,498	...	2,69,773	...	970,950	...	250,307
2	South Thána ...	...	1,610,172	...	1,19,251	...	563,670	...	96,413
3	East Khándesh ...	242,700	...	...	4,929	213,000	...	...	4,354
4	West Khándesh...	...	...	123,888	10,110	...	...	213,750	8,884
5	Násik	387,169	...	...	16,817	641,262	...	...	33,483
6	Ahmednagar ...	...	...	1,045	243	...	...	305	158
7	Poona	97,645	93	...	202	193,632	142	...	235
8	Sátára	1,391	473	...	778	...	2,230	...	801
9	Sholápur... ...	...	...	130	124	...	...	129	176
10	Surat	34,899	1,883	281,700	37,786	...	...	...	33,320
11	Panch Mahals ...	218,202	50,787	61,185	47,247	2,307	17,117	17,772	55,230
	Total ...	982,006	2,788,906	467,948	5,07,260	1,050,201	1,554,109	231,956	4,83,366

220. In the North Thána division 160 coupes, laid out in different blocks of the Working Plans series, by the Surveyors of the Working Plans Branch, were offered for sale, but out of them 136 only found purchasers. In the South Thána Division 102 new coupes and 21 unsold coupes of the previous year excluding the Karjat and Khálápur ranges, were offered for sale, and 98 were sold. The average price per acre in North Thána remained unchanged, but in the South Thána division it went below the average of the preceding year, owing to the unfavourable situation of the coupes, the inferior quality of the material they contained, and to some extent to the Railway Company having enforced their traffic rules more strictly, by enhancing the cost of transport per waggon-load of timber.

221. On the whole, the coupe system in Thána has been very successful, but it may happen that for some years to come all the coupes offered for sale will not attract purchasers; however, if some coupes do remain unsold and unexploited, it does not follow that it is a matter for regret, so long as local supply is not affected; the timber unmarked in the coupes for being felled and removed is not mature and does not deteriorate or depreciate by keeping for a year or two longer; the system of working applied to the Thána forests is a compulsory one owing to the presence of certain local conditions or factors. If coppice at a certain age does not sell, it does not harm by being given a longer period of existence, unless it has been grown specially to produce a rafter or a pole of certain dimensions or age. Rules 21 and 22 of the rules of September 6th, 1892, published under Section 75 (*a*) of the Forest Act, prescribe how unsold coupes are to be treated.

222. In the two divisions of the Khándesh Collectorate there is a greater falling off this year than ever, and this is attributed to the general depression caused in trade by the partial failure of the staple crop of the district and the price of cotton having ruled low.

223. The outturn of the Násik and Poona divisions is derived from the royalty trees outside the demarcation line, while that of the Ahmednagar, Sátára and Sholápur is from the sale of dead and fallen timber, and compares favourably with the results of the preceding year.

224. In the Surat division prices ruled low in consequence of a slack demand coupled with the increasing supply from the Thána forests to feed the Yeola and other timber markets above the ghâts, which used formerly to draw their supplies mainly from the Dángs.

225. The result of the Panch Mahâls Division compares favourably with that of the past year.

226. The following statement exhibits the quantity of fuel removed by purchasers, either by contract or on permits issued on payment of fees in advance at their own cost, together with the revenue realized as compared with the preceding year. The results are extremely satisfactory:—

Division.	Firewood in Cubic Feet.		Receipts.	
	1890-91.	1891-92.	1890-91.	1891-92.
	C. ft.	C. ft.	Rs.	Rs.
North Thána	1,517,820	1,204,388	5,173	6,905
South Thána	698,763	1,659,862	1,722	1,507
East Khándesh	1,960,560	1,135,280	10,831	9,459
West Khándesh	100,305	167,900	3,346	3,394
Násik	51,336	90,568	1,671	1,381
Ahmednagar	45,004	62,797	2,966	3,480
Poona	19,207	42,849	6,150	8,315
Sátára	7,337	9,854	284	468
Sholápur	1,170	1,692	830	4,337
Surat	.....	.....	254	787
Panch Mahâls	291,653	239,400	1,992	2,294
Total ...	4,693,155	4,614,590	35,219	42,327

227. Bamboos were removed by purchasers and consumers from the forests of all divisions of the Northern Circle except Sholápur (where there are none), either by contract or on the permit system, in head-loads, cart-loads, &c., and the following table compares the results of the year with those of the previous one. Here, again, the results are highly satisfactory:—

Division.	1890-91.				1891-92.				Remarks.
	Bamboos removed.			Amount realized.	Bamboos removed.			Amount realized.	
	Cart-loads.	Head-loads.	Number.		Cart-loads.	Head-loads.	Number.		
				Rs.				Rs.	
North Thána	...	...	111,419	9,284	8,560	...	240,887	10,663	
South Thána	377	3,018	202,721	5,610	740	1,843	303,922	7,489	
East Khándesh ...	...	...	380,000	4,660	...	...	407,845	4,674	
West Khándesh ...	...	...	153,270	1,755	...	...	171,782	2,600	
Násik	151	895	203,838	5,042	...	9,989	196,203	4,702	
Ahmednagar	...	...	28,087	287	...	...	32,847	342	
Poona	...	...	104,134	1,102	...	...	148,422	1,540	
Sátára	...	3,096	80,200	708	...	1,968	14,675	329	
Surat	...	...	483,906	10,949	...	...	727,032	16,306	
Panch Mahâls	56	4	127,426	1,667	99	4	143,378	1,661	
Total .	584	7,013	1,803,001	41,074	9,399	13,804	2,392,993	50,306	

228. The following statement shows the realizations from minor produce such as hirda, apta and temburni leaves, tarwad and shembi bark, honey, wax, fruits, stones, earth, kárvi, &c., removed from the forests of the several divisions of the Northern Circle by consumers and purchasers as compared with the results of the last year. In West Khándesh the loss is chiefly on Rosha oil stills, in

Ahmednagar in consequence of there being no outstandings of the previous year to collect, while the gain in other divisions is due to favourable prices having been obtained in the sale of hirda, apta and temburni leaves, &c. On the whole the results are very satisfactory :—

Division.	Amount, 1890-91.	Amount, 1891-92.
	Rs.	Rs.
North Thána	3,655	4,902
South Thána	1,946	2,266
East Khándesh	964	1,208
West Khándesh	12,607	8,097
Násik	3,394	4,544
Ahmednagar	1,547	1,370
Poona	4,470	7,414
Sátára	2,669	3,340
Sholápur	95	541
Surat	1,400	2,225
Panch Mahális	1,730	1,942
Total ...	34,477	37,849

III.—FREE GRANTS OF FOREST PRODUCE.

229. The following is a comparative statement of free grants of timber made by Revenue Officers in almost all cases during the last three years, from the forests of the several divisions of the Northern Circle :—

No.	Division.	1888-89.	1889-90.	1890-91.	1891-92.
1	North Thána	340	73	1,633	...
2	South Thána	1,166	168	3,049	652
3	East Khándesh	...	...	...	210
4	West Khándesh	159	45	142	714
5	Násik	368	267	217	177
6	Ahmednagar	4	297	10	139
7	Poona	817	539	519	709
8	Sátára	85	354	699	...
9	Solápur	...	...	...	...
10	Surat	194	...	790	15
11	Panch Mahális	307	193	1,547	535
	Total ...	3,440	1,936	8,606	3,151

IV.—PRODUCE REMOVED BY RIGHT-HOLDERS AND UNDER PRIVILEGES.

230. It is entirely impossible to give an exact estimate of the value of the forest produce removed by privilege-holders, as the exercise of privileges is not restricted to fixed times, and is not limited, in most cases, to a defined quantity. It is at the same time very difficult to arrive at any correct knowledge of the value of the exploitations of timber, firewood and other forest produce taken out of the forests free of charge by forest villagers, wild tribes and others, for domestic use, or for sale. The free pasturage enjoyed by cattle of forest villagers inside Reserved Forests alone represents a considerable amount. It would be incorrect to enter an estimate which might require six or seven figures to show it, as the entry of hypothetical figures in an administration report is objectionable.

V.—IMPORTS AND EXPORTS OF FOREST PRODUCE.

231. In North Thána imports of forest produce are insignificant and comprise merely a small quantity of Moulmein teak required for the better class

of buildings, while exports comprise nearly the whole of the forest produce exploited annually, only a small quantity of timber and firewood being consumed locally. In South Thána about 75 per cent. of the produce is annually exported and imports are practically nil.

232. In West Khándesh the duty on foreign timber has again fallen considerably this year, and a glance at the figures given below for the last five years will show that there has been a constant decline in the revenue realized under this heading :—

	Rs.
1887-88	16,065
1888-89	18,307
1889-90	15,051
1890-91	13,854
1891-92	9,374

233. The Divisional Forest Officer considers that the falling off is due partly to the fact of the Native States at last awakening to the reality that forests are not inexhaustible, and to their instituting closures in consequence; this is not to be regretted in the interests of the country at large. If the markets of West Khándesh were not glutted by the immature timber of Native States, there would be no difficulty in working the Khándesh forests to greater profit. This year imports consisted of timber, fuel and bamboos only, which found a ready sale in West and East Khándesh. The exports of the district consist, for the main part, of "Rosha oil," (grass-oil) which goes to Bombay, and from there the best sort is exported to Europe. A little teak is exported from Khándesh down the Tapti river to the markets in the Baroda State.

234. In East Khándesh the import trade of timber, firewood, charcoal and bamboos declined slightly during a portion of the year, owing to the forests in foreign territory having again been closed against teak and tiwas exploitation; and consequently the amount of import duty collected was Rs. 14,176 against Rs. 14,625 in the preceding year.

235. The following statement shows a comparison of the quantity of different descriptions of dutiable material imported into this division during the year under report and the one preceding it :—

Loads.		1890-91.				1891-92.			
		Teak, &c., Timber.	Firewood.	Charcoal.	Bamboos.	Teak, &c., Timber.	Firewood.	Charcoal.	Bamboos.
Cart	No.	3,444	9,838	44	875	3,628	7,739	42	1,375
Head.. ...	„	100	...	648	3,242	590	5	238	1,865
Bullock ...	„	6,426	...	1,287	21,026	5,340	...	920	19,642
Buffalo ...	„	3	...	2	5	...	...	...	13
Donkey ...	„	51	3	...	...	29	...	4	...

CHAPTER V.

FINANCIAL RESULTS.

236. The following statement shows the financial results of the year under report, as compared with those of the preceding year :—

Year.	Receipts.	Expenditure.			Net Revenue.
		A.—Conservancy and Works.	B.—Establishments.	Total.	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1890-91	12,57,501 15 3	2,47,857 10 7	4,87,846 15 8	7,35,704 10 3	5,21,797 5 0
1891-92	13,62,427 10 11	2,32,321 2 4	4,85,072 14 3	7,17,394 0 7	6,45,033 10 4
Increase ...	1,04,925 11 8	.....	.....	.....	1,23,236 5 4
Decrease ...	.....	15,536 8 3	2,774 1 5	18,310 9 8	.....

237. The revenue realized during 1890-91 was up to then the highest on record produced by the forests of the Northern Circle, but the actual collections of the year of the present report have considerably surpassed that total, for they show a net revenue of Rs. 6,45,033 against Rs. 5,21,797 in the year preceding, and thus the financial prosperity of the Circle has been more than maintained.

238. The distribution of receipts among the several divisions of the Circle, as compared with the collections of the preceding year, is exhibited in the following statement:—

No.	Division.	1890-91.	1891-92.	Increase.	Decrease.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1	Direction	.....	3 8 0	3 8 0	.....
2	North Thána ...	3,05,473 6 3	3,05,430 8 11	.....	42 13 4
3	South Thána ...	1,53,716 2 8	1,27,438 8 1	.....	26,277 10 7
4	East Khándesh ...	1,17,333 7 6	1,50,811 4 2	33,477 12 8	.....
5	West Khándesh ...	1,64,872 7 3	2,02,943 3 5	38,070 12 2	.....
6	Násik	90,998 3 2	1,22,513 6 10	31,515 3 8	.....
7	Ahmednagar ...	55,412 12 1	57,410 12 10	1,998 0 9	.....
8	Poona	99,197 15 3	95,189 1 2	.....	4,008 14 1
9	Sátára	70,664 3 6	88,641 12 10	17,977 9 4	.....
10	Sholápur	21,613 4 4	30,640 12 7	9,027 8 3	.....
11	Surat	1,11,419 15 0	1,04,299 4 4	.....	7,120 10 8
12	Panch Mahals ...	66,799 4 3	77,102 15 9	10,303 11 6	.....
13	Working Plans ...	0 14 0	2 8 0	1 10 0	.....
	Total ...	12,57,501 15 3	13,62,427 10 11	1,42,375 12 4	37,450 0 8

239. North Thána has practically returned the same amount of revenue as it did last year. The decrease of Rs. 26,277 against South Thána is due to—

(*a*) the cessation of sales to the Tánsa dam and duct contractors of timber, &c., which they required for their works, and which in former years, when the works were in progress, produced large sums of revenue;

(*b*) the loss of the Karjat and Khálápur ranges which have been transferred to the Kolába Collectorate of the Southern Circle, whereby the revenue of these two ranges, which was included in the figures for 1890-91 of the Northern Circle, and amounted then to Rs. 15,946, has been transferred and credited to the Southern Circle; and

(*c*) the sales of coupes not having realised as high a sum as was anticipated, the prices being low generally.

240. In addition to this, a sum of Rs. 3,454 remained outstanding at the close of the year, owing to the failure on the part of a contractor to work up to his agreement. All these causes assisted towards decreasing the revenue of this division during the year.

241. The increase of Rs. 33,477 over the actuals of past year against the East Khándesh Division is mostly due to the increasing demand for grass and grazing, which, with the introduction of the new grazing rules, carefully and closely supervised, produced excellent results. The receipts from this source only exceeded the collections of the year preceding by Rs. 31,505. In the West Khándesh Division, likewise, the receipts have gone up by a large sum of Rs. 38,070; the successful sales of timber and fuel, as also the augmented receipts from grass and grazing, have contributed to this result. All the firewood that was on hand from last year in this division was also sold during the year, there being a large demand for it for the use of steam cotton mills, which are annually increasing in number, and are to be found now near almost every railway station as well as at large towns in the district.

242. The Násik Division likewise represents an increase of Rs. 31,515, mainly to be found under the heads II*a* and II*d*. The former exhibits Rs. 16,672 in excess of the past year's revenue, owing to more standing timber in Málki numbers in Peint and Dindori Ranges having been sold for exploitation by contractors than was anticipated, while the excess of Rs. 10,958 under the latter is due to the closer supervision of grazing arrangements under the new grazing

rules. Receipts under IIe have also contributed Rs. 1,151 towards this increase, as hirdas, which were collected on the share system, and the proceeds of which are credited to this sub-head, have commanded higher rates this year than last.

243. The increase of Rs. 998 in the Ahmednagar division is also ascribed to the new system of grazing having been worked under careful supervision.

244. The divisions of Poona and Surat show small decreases of Rs. 4,008 and Rs. 7,120 respectively, in comparison with the actuals of the past year; in the former the decrease is to be found under II*d*, owing to larger areas of valuable kurans (forest reserves) having been placed at the disposal of the Commissariat Department, free of charge, than during 1890-91; while in the Surat division the falling off is due to the failure on the part of the contractor of green teak contract to pay in the full amount of his purchase money into the treasury before the close of the year.

245. In all the other divisions of the Northern Circle, the collections of the year are in excess of those of the year preceding. In the Sátára division the increase of Rs. 17,977 is due to a larger quantity of timber and fuel having been disposed of departmentally than was anticipated, and to better prices having ruled the market in respect of hirdas, the fruit of terminalia chebula, collected departmentally. Revenue from grass and grazing has also contributed Rs. 5,640 towards the increase. The Sholápur division, in like manner, exhibits an excess of Rs. 9,027, mainly through better realizations under firewood, I and II, and through better prices obtained at auction sales for grass and grazing.

246. In the Panch Mahál division Rs. 10,303 are in excess of the actuals of the past year, and this increase is due to keener competition at auction sales of standing teak, with the realization of better prices. The recent introduction of certain restrictions on indiscriminate cutting in Báriya, and the influence of the new railway on the district generally, have led to a brisker demand for timber and other forest produce from the State forests.

247. The expenditure under A Conservancy and Works on the other hand, amounting to Rs. 2,32,321, is less than the actuals of the past year by Rs. 15,536, and its distribution among the several divisions of the Northern Circle, as compared with that of the year preceding, is shown in the statement given below :—

Number.	Division.	1890-91.	1891-92.	Increase.	Decrease.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1	Direction	.....	567 4 0	567 4 0	.....
2	North Thána	14,938 7 7	22,428 10 5	7,490 2 10	.....
3	South Thána	37,983 0 11	28,531 2 11	.....	9,451 14 0
4	East Khándesh	11,487 8 8	16,578 3 5	5,090 10 9	.....
5	West Khándesh	22,919 8 11	22,997 8 4	77 15 5	.....
6	Násik	10,618 9 6	15,946 8 5	5,327 14 11	.....
7	Ahmednagar	14,254 7 8	13,314 9 6	.....	939 14 2
8	Poona	44,851 1 11	37,584 5 0	.....	7,266 12 11
9	Sátára	16,658 15 10	18,275 11 1	1,616 11 3	.....
10	Sholápur	5,638 13 11	6,710 11 4	1,071 13 5	.....
11	Surat	48,295 9 2	37,931 6 3	.....	10,364 2 11
12	Panch Mahals—	3,591 15 10	4,507 15 2	915 15 4	.....
13	Working Plans	16,619 6 8	6,947 2 6	.....	9,672 4 2
	Total ...	2,47,857 10 7	2,32,321 2 4	22,158 7 11	37,695 0 2

248. The increase of Rs. 567 against Direction is due to the transfer of this amount from B. III. *f.* to A. VI. *c.* Provision for the purchase of a tent for the office of the Conservator was made under B. III. *f.*, but according to the new classification of accounts this charge was debited to A. VI. *c.*, where no provision existed, and hence the increase.

249. The increase of Rs. 7,490 against North Thána is due to expenses incurred in departmental fellings, none of which were undertaken in the previous year, and to larger expenditure on demarcation, including expenses of the Forest Settlement Officer, and protection from fire; while the decrease of Rs. 9,451 in South Thána is due to the transfer of two ranges, Karjat and Khálápur, from the Northern Circle, to the Southern Circle, and to less expenditure

in the Sháhápur range, where large sums of money were expended during the preceding year in payment of compensation for lands acquired for forests upon the catchment of the Tánsa lake.

250. The principal items which have increased the expenditure of the East Khándesh division are to be found under A. I. *b*, A. II. and A. VIII. *b*. The higher expenditure under A. I. *b* is due to the clearing of disforested lands in the Chopdá táluka, as ordered by Government in their Resolution No. 3563, dated 25th May 1891, in the Revenue Department; that under A. II. is in proportion to the large increase under II. *d*. of receipts, whereby larger payments had to be made to village officers in remuneration for collecting from villagers revenue for grass and grazing. Under A. VIII. *b* a sum of Rs. 4,797 was spent for acquiring occupied lands for forests by the Forest Settlement Officer; the expenditure under this subordinate heading during the preceding year had amounted to Rs. 1,703 only. The increase of Rs. 77 against West Khándesh is inconsiderable and calls for no special remarks.

251. Násik represents an excess of Rs. 5,327 over the figures of past year, and this is due to the increased expenditure under A. VIII. *a*, on the erection of special forest boundary-marks, as this work was pushed on with vigor in all the ranges of the division. Large payments of percentages to village officers, for collecting grass revenue consequent to increased receipts from grass and grazing have also, to some extent, augmented the expenditure in this division.

252. On the other hand, the divisions of Ahmednagar and Poona show a decrease of Rs. 939 and Rs. 7,266 respectively, the former due to a smaller outlay on materials for wire-fencing during the year than in the year preceding; while the latter to the debit of a smaller amount on account of the charges on forest surveys than in the year before, and to the abandonment of departmental working under I. *b*. "Firewood" standing in the coupes was sold to contractors for cutting and removal, thereby avoiding departmental expenditure on its account.

253. The increases of Rs. 1,616 and Rs. 1,071 in the Sátára and Sholápur divisions are due to the larger cuttings of firewood in the former, and to the debit of forest survey charges in the latter. The decrease of Rs. 10,364, on the other hand, in the Surat division, is due to there being no teak fellings in the Lower Dángs, and to the quantity of teak timber carted to the coast being much smaller in comparison with the operations of the preceding year. The small increase of Rs. 915 in the Panch Maháls division is ascribed to large payments of remuneration to village officers under II, and to the payment of compensation, Rs. 673, by the Forest Settlement Officer, while no such payment was made in the year preceding. The decrease of Rs. 9,672 against the Working Plans division is entirely due to the transfer of the cost of pay and travelling allowances of the Divisional Forest Officer, Working Plans, and his office establishments from A. VIII. *c*. to B. I. *b* and *d* and II. *b* and *d*, respectively, while in the year preceding the whole of this cost appeared under A. VIII. *c*.

254. The expenditure under B. Establishments shows a decrease of Rs. 2,774, in comparison with the actuals of the year preceding, and calls for no special explanations, as fluctuations in pay and allowances of officers account for such minor differences. It may, at the same time, be urged that payments to officers of other provinces, which are made in Bombay and which have no connection whatsoever with the expenditure of the Northern Circle, have always increased the expenditure under this head, thereby curtailing the surplus revenue of the Circle. This year Rs. 1,240 have been so debited against Direction.

255. The gross receipts of the forests of the Northern Circle have increased from Rs. 12,57,501-15-3 to Rs. 13,62,427-10-11, at the same time the total expenditure has decreased from Rs. 7,35,704-10-3 to Rs. 7,17,394-0-7, and the net revenue has gone up from Rs. 5,21,799-5-0 to Rs. 6,45,033-10-4. These results have been obtained by no reckless sales of timber and other forest produce; the augmentation of the productive powers of the forests has been as carefully safeguarded as it was possible for the administration to do so; all

fellings have been strictly improvement, to remove the mature, the decayed and the too thickly crowding, so as to give space to promising trees to develop and to make room for a better generation. Revenue has not been the main object of forest management; to serve agriculture by maintaining the integrity of forests upon the higher levels of the country, and by meeting as far as it was possible to do so all reasonable demands of local supply, have been the effort and endeavour of Forest Officers; while at the same time a careful control of expenditure and the realization of a legitimate income from the forests have been studied, concurrent with the augmentation of the capital value of the forests.

CHAPTER VI.

GENERAL REMARKS.

256. At the commencement of the year the Conservator's camp was in Poona, having come from the Thána districts during the Easter vacation; from thence it went by the Southern Marátha Railway to the Karád range in the Sátára District; and encamping at Ond the Conservator visited the teak and other forests of the range, as well as the coupes of the year about Mhasoli, climbing to the top of the highest peak 3,200 feet above sea level, and he went to the very promising plantation at Chachargaon on the bank of the Koyana river which has been made by forest guards of the beat without any expenditure of Government money, and which contains an advanced growth of teak and other trees. Thunder storms of considerable severity with heavy down-pours of rain occurred almost daily from the 13th to the 17th. The office clerks and heavy camp were sent round by the road *viâ* Karád to Pátan, while the Conservator with a flying camp carried on coolies' heads marched to Yelgaon at the head of the valley; and from there ascended the cross range of hills which forms the divide between the Koyana river drainage on the north and the Wárna river on the south, with a view to prospect for a possible line of road to open out the moist forests upon the crest of eastern slopes of the Sahyádris between the frontiers of the Kolhápur State and the Mala ghát; and at the same time to inspect these forests which contain a wealth of Hirda trees, and to see "the kumri allotments on the Sátára ghâts." From Yelgaon to Bamburwadi of Gud is a stiff climb of 1,000 feet, and from there right up to the Mala ghát a distance of about 40 miles. The country on the top of the hill range is fairly level, presenting "no great engineering difficulties to the construction of a road." There are forest reserves on the plateau, as well as upon the upper drainage slopes of the valleys on either side. To the 27th of April the Conservator was engaged in inspecting the forests at the head waters of the Wárna river, camp being moved almost daily, and considerable distances up and down lofty and steep hills being walked daily; these ever-green forests have improved greatly during the last 7 or 8 years; and the contrast presented between the country they cover, protect and enrich on the one side, and the country of the Ratnágiri district on the western slopes of the Sahyádris, where the forests have been completely shaved, from the vertex to the foot of the western ghâts, and on to the sea board, is very striking; and it affords over-whelming testimony to the vital importance in the interests of the country and people of forest conservancy and of a forest department.

257. The Divisional Forest Officer, Working Plans, Mr. Fry, joined the Conservator's camp at the Mala ghát on the 27th April; and on the 30th the two camps were carried down the hills to Helwak at the head of the Kumbhárli ghát on the Karád and Chiplun cart road, the forests of Patharpunj, Dokhavné, Vaghra and Govara being inspected by the way, and likewise the kumri allotments which are worked on a rotation system, under which kumri must perforce die out if confined to its present sites.

258. After inspecting the forests at the head of the Kumbhárli ghát, and the junglewood rafters which had been brought down from the Dhankal forests to the cart road for sale to cartmen returning with empty carts to the open country, east of the Krishna river, the Conservator marched with a reduced camp up the Koyana valley to Mahábleshvar, which place was reached on the 14th. The office camp was sent round by cart road, by way of Sátára to Máhá-

bleshvar. Along this upper section of the Koyana valley from Helwank north, which has never been travelled over by carts, tents, &c., had to be carried by coolies. Daily inspections of the forests, including those of Rasati, Sirsingi, Taloshi, Pali and Maldeo at the head of the Tivra pass, upon the drainage slopes overhanging the Koyana valley, were made, which entailed considerable hill-climbing and walking great distances from before sunrise to midday. There is a very dense and strong growth of bamboos on the tops and upper slopes of all the hills, intermixed with ever-green timber trees of very fair size, but kumri cultivation runs up the steep sides of the mountains to varying heights up to 500 feet from the bottom of the valley, and is denuding very completely the slopes upon which it is practised, all vegetation being completely shaved off, and the soil which rested upon the slopes is washed down into the bed of the Koyana river; if then the forests upon the higher slopes are not preserved, there will be dangerous floods, for the mountain sides are very steep and the rainfall is very heavy and other disastrous consequences will follow. The Conservator walked up to Kas from Shembdi, and inspected the forests upon the catchment of the reservoir, which was constructed for the water-supply of the city and cantonments of Sátára, to which the water is carried by pipes, a distance of many miles; it was noticed that a depth of 7 feet of water only was registered at the out-let. The Conservator walked also to the Met-Indoli forests and up to the top of Waseota fort on the very edge of the ghâts; the forests on the lower slopes to half way up are splendid, almost primeval in appearance, for they contain many trees of really grand proportions, and seedlings of all ages and kinds abound, but the cost of exploitation of timber would at present be very great. Selection felling would probably be the only safe plan of working these forests, for the sides of the mountain are very steep, and the rainfall is very heavy. From the top of Waseota fort, the view of the Ratnágiri country, 3,700 feet down below with the hills entirely divested of woods spreading out in interminable complexity, brown and parched, and trending down towards the sea, with the smoke of multitudineous ráb fires rising up from them in all directions to the sky, was a distressful sight to a Forest Officer; the Koyna valley in contrast with the upper portions of its side-walls clothed with green in Reserved Forest, and with the forest-clad steep land-marks of Makrangad or the saddle-back, and the bold outlines of the Mahábleshvar range covered all over with timber, suggests a land of agricultural prosperity. From the 14th to the 27th May, the Conservator was encamped at Mahábleshwar, from whence he proceeded into Poona, his head-quarters station for the monsoon.

259. Leaving Poona in November, after having made a flying visit to Dhulia, the Conservator marched through a part of the Haveli range into the Sirur range of Poona district, and through the Párner, Sangamner and Kopargaon ranges of the Ahmednagar district, by way of the Niphád and Násik ranges, to Násik, by Christmas; Reserved Forests covering the sides of the low hills, bábul forests on the banks of rivers, with their coupes under exploitation, and their compartments closed for reproduction, were visited daily in every direction. The Divisional Forest Officer of Ahmednagar joined the Conservator in his division, and travelled with him a part of the way; and the Collector of the district was met at Párner, when the Conservator conferred with him on forest matters.

260. After Christmas leaving Násik, the Conservator marched through the Dindori and Peint ranges with Mr. Betham, the Divisional Forest Officer; and through the Dharampur State to Párdi in the Surat division, where Mr. Madan, the Divisional Forest Officer, met him; the Goema, Velvunch, Parnera, &c., Reserved Forests were inspected, and the timber in the Vagrech depôt was examined. From Surat the camp went by railway to Godhra in the Panch Mahâls, where forests and forest operations were inspected, and the Conservator was in camp with the Collector and Divisional Forest Officer for some time, examining forests, and works, and discussing the forest question. After visiting the forests round Chámpáner and Páwágad, the Conservator marched with the Political Agent to the Nerbudda at Chándod, and from thence he proceeded, the Forest Officer of the State Mr. W. G. Clabby accompanying him, through the forest country of the Rájpipla State to the Mándvi táluka of the Surat district. A large reservation of forest areas with a better protection of forest growth is

imperative in the Rájpipla State in the interests of agriculture, as well as of other interests which are dependent upon the maintenance of forest growth upon the hilly forest lands, the water-sheds and drainage slopes of a rough and hilly country; the destruction of trees in this State in that portion seen by the Conservator is awful.

261. Mr. R. H. Madan, Divisional Forest Officer of Surat, rejoined the Conservator in the Mándvi range, and forests and works were inspected, and then the Conservator proceeded with his camp to the Thána districts, to the Máhim range, wherein forests and coupes under exploitation were visited in company with the Divisional Forest Officer, North Thána, Mr. Millett; and on the 31st March camp was in the Bassein Range of the North Thána division.

262. Mr. Millett, the Divisional Forest Officer, North Thána, has fully maintained his character of an energetic, zealous and capable Forest Officer by administering one of the most difficult divisions in the Presidency, with conspicuous ability, to the entire satisfaction of his Collector and the approval of his Conservator. Of his sub-division officers Mr. Millett commends Mr. Robinson for having throughout the year worked well, both in inspection and office work, having given satisfaction, and having been of great service to the Divisional Forest Officer. Mr. Baptista, Sub-Assistant Conservator, is reported to have been energetic, but he suffered much from sickness, and he was also absent for a time: the work suffered in consequence in his sub-division; but Mr. Baptista's contumacious habit of writing in official correspondence gave trouble and created work. The Collector of Thána, Mr. Sinclair, has recorded that Mr. Millett's management of the division has been very satisfactory and that he is indebted to that officer "for much of the success which has attended the forest administration of Thána of late."

263. Mr. L. Osmaston, who has been in charge of South Thána, is a conscientious and very hard-working officer, and although young in the service, to be selected for such an important administrative position, still having qualified by passing the vernacular and departmental examinations, the Conservator recommended him for the appointment of Divisional Forest Officer, and he has proved a great success, fully justifying his preferment. The Collector has written that he "has much pleasure in recording his satisfaction with the gazetted officers of the division, and his personal and separate opinion that they have, during and since the year under report, considerably improved its administration." Mr. F. D. Fisher, a new trained officer, who arrived in the country at the end of December, was posted to the South Thána division as an Assistant, and proved himself during his short stay there to be energetic and full of interest in his work. Mr. J. H. Clabby is also reported to have worked well: and Mr. A. N. Master, L.C.E., a newly appointed sub-division officer, who had no time to prove his capacity before the year ended, has entered into his new profession with good promise.

264. Mr. F. R. Desái, Deputy Conservator of Forests, First Grade, a Nancy-trained forest officer, has been in charge of the East Khándesh division throughout the year, and has done excellent work; and Mr. Silcock, I.C.S, the Collector of the district, who has had considerable experience of forest conservancy, and of the want of it, when doing duty as a Forest Settlement Officer in the Násik and Sholápur districts, in forwarding the administration report of the East Khándesh forests, has recorded that:—

"Mr. Desai has submitted a very interesting and intelligent account of the year's working, and his report shows satisfactory progress in forest conservancy.

"The revenue from grass and grazing has increased very considerably during the year, being Rs. 85,049 as against Rs. 53,521 in the preceding year, the chief increase being due, as noted above, to fee grazing. In ordinary forest produce—timber, firewood, &c.—there has been a slight decrease, but the receipts from all sources during the year show an increase of Rs. 33,569 over those of the preceding year, which is very satisfactory. The expenditure has also increased, as was natural, by some Rs. 6,110, but the net revenue has risen from Rs. 62,680 in 1890-91 to Rs. 90,139, a marked increase, and which reflects credit on the management of Mr. Desái. With such a large net revenue it should be possible now to make some substantial addition to the Protective Establishment, and thus render less frequent the occurrence of fires, and the consequent destruction of valuable young trees. The

expenditure is only 40 per cent. of the revenue, and out of the handsome surplus available, there should be no difficulty in augmenting the permanent staff.

"On the whole, the report is a very satisfactory one except in the one point, the number of cattle which have had to be impounded, but as few or no complaints have been received from the owners of the cattle, it may be presumed they were well aware of what they were doing, and it may be hoped that this year's experience will act as a warning, and that in the report for 1892-93 a substantial decrease under this head will be shown, at least as regards the open forest."

265. Mr. R. S. Fagan, Deputy Conservator, was in charge of the West Khándesh division for the first three months of the year, and Mr. Desái held it for the next four and a half months, when Mr. E. G. Oliver, Assistant Conservator of Forests, First Grade, was appointed to the charge. This officer did not know the vernacular of the district, nor had he ever before been in charge of a forest division, but he very soon acquired a knowledge of the language, and quickly mastered the intricacies of the management, and has done very well indeed, as will be seen from his Collector's notes, which read as under :—

"The report is a very satisfactory one, so far as revenue is concerned, but it is disappointing to find that there has been no decrease in the ravages caused by fire.

"Expenditure has increased slightly, but was due mainly, it appears, to the Forest Settlement Office, so that with no increased expenditure on Conservancy or Establishment, the gross revenue has risen from Rs. 1,68,236 in 1890-91 to Rs. 2,01,900 during the year under report, which is quite a record for the division, as Mr. Oliver notes, and reflects credit on himself and his subordinates. With a net revenue of over one lákh, it ought to be possible to substantially increase the protective establishment. For the large area under reservation in this division a force of only 219 round and beat guards is absurdly inadequate, and it is quite impossible to enforce adequate protection without a considerable increase. Government possesses a valuable property in these reserves, and it is worth while taking care of them, and this cannot be properly done with the present insufficient staff."

266. Mr. Oliver reports that his sub-division officer, Mr. Ganesh Sakhárám Hingé, carried out the work of auctions in Nawápur and Nizámpur very successfully, and is a very hard-working and energetic officer; and Mr. Fagan likewise gives this sub-division officer a high character for work.

267. Mr. W. G. Betham has been Divisional Forest Officer of Násik, and the administration has been carried on smoothly and efficiently by him, commanding the approval of his Collector, Mr. Porteous, and of the Conservator also. Mr. Betham reports that his sub-division officer, Mr. Wallinger, has worked exceedingly well, and was of great use in the special duty of demarcating forest boundaries by special marks in the Peint táluka. Mr. Winter, I.C.S., who had succeeded as Collector of Násik, in forwarding his Divisional Forest Officer's report remarked :—

"This district forest report ought to be an interesting record of the working and improvement of a magnificent State property, and it should be a cardinal principle that all the moneys levied in the district, and credited to the Forest Department should, after paying the working expenses and a fair percentage of the Conservator's and other controlling establishments, be spent in the district from a forest point of view."

268. Mr. A. D. Wilkins, Deputy Conservator of Forests, has held charge of the Ahmednagar division throughout the year, and has performed his duties, as usual, to the entire satisfaction of his Collector, and of the Conservator of the Circle; he has been active, zealous and hard-working. The Collector of Ahmednagar notes the following upon Mr. Wilkins' annual report :—

"The Divisional Forest Officer is to be congratulated on being able to show a fair surplus of receipts over expenditure, which, as he points out, has been due chiefly to increased collection on account of grazing fees, and to less expenditure on account of wire-fencing."

269. Mr. R. C. Wroughton, Deputy Conservator of Forests, was Divisional Forest Officer of Poona during the year, except for a break of about three months at the end of the hot weather and the first half of the rains, when he was absent on privilege leave, and Mr. Gleadow, Deputy Conservator, acted for him. Mr. Wroughton has administered the Poona division with care, intelligence and discretion: and reports that his sub-division forest officer, Mr. Gaunde, has worked to his entire satisfaction.

270. Mr. Frank Gleadow, Deputy Conservator of Forests, who discharged the duties of Divisional Forest Officer, Poona, during Mr. Wroughton's absence

on short leave, was then transferred to the Southern Circle, until the close of the year; but he conducted the examination in forestry of the L. C. E. graduates of the Bombay University in the cold weather.

271. Mr. Christopher Greatheed, Deputy Conservator of Forests, Third Grade, had charge of the Sátára division up to the 24th June 1891, when he was transferred to the Southern Circle; and Mr. G. D. Pánse, Bombay C. S., held interim charge until the 4th June following, upon which date Mr. R. S. Fagan, Deputy Conservator, Fourth Grade, arrived from West Khándesh and took over the Sátára division, and remained in charge up to the end of the year: upon his administration report the Collector of Sátára has remarked:—

"The district has been under Mr. Fagan for three-fourth of the year in question, and during that period he has travelled over the whole district, and made himself well acquainted with it.

"I consider that in Mr. Fagan Government have a Forest Officer on whom great reliance can be placed. He is kindly disposed to the rayats, keenly alive to the interests of his forest, and indefatigable in work. It has been a pleasure to me to have him as my Forest Officer."

272. Mr. Fagan does not speak favorably of his sub-division officer Mr. Lakshman Dáji Joshi, who has not, seemingly, worked to his satisfaction.

273. Mr. Samuel Hornidge, A.M.I.C.E., has been Divisional Forest Officer of Sholápur throughout the year, and has managed the district with commendable zeal and industry; the charge of the Akalkot forests, which have been under the Sholápur division for several years, was made over to the Rája of that State on the 25th November 1891, when the Rája was installed in the government of his own country by the Commissioner, Central Division, under orders of Government.

274. In forwarding the Surat Divisional Forest Officer's administration report the Collector of Surat remarks:—

"In the Mándvi táluka, where the great bulk of the Reserved Forest of the Surat district lies, the department has worked without friction. Mr. Weir remarks that he found the people fairly well supplied with firewood and with grazing. The forests in Bulsár, Chikhli and Párdi tálukas are not of importance.

"In the more populous tálukas, Chorási, Olpád, Jalálpur and Bulsár, there is a crying want of wood for fuel. People use up their farm-yard manure for this purpose, not because they prefer it, but because wood is too scarce and expensive. The demand for land is such that there are but few even isolated fields left which are adopted for ordinary fuel reserves. The undersigned is instituting a systematic enquiry as to what sort of land Government still have on their hands in these tálukas, with a view to seeing what can be made of them. If the experiment of growing casuarina on the sand banks of Tithal is successful, it is probable that it may be largely extended."

And in transmitting the same the Political Agent, Khándesh, states:—

"It is gratifying to find that the department is gradually enlisting the sympathies of the villagers in the matter of fire protection. This is a matter of great importance in a country like the Dángs where the people must be left so much to themselves.

"Apparently the people are satisfied with the manner in which the Forest Department is exploiting the timber, as no complaints have been received."

275. Mr. Rustomji Hormusji Madan, L.C.E., has been Divisional Forest Officer throughout the year, and has worked extremely well despite repeated attacks of malarious fever. During the rains he caused some rafts of timber to be floated down the Ambiká river from Waghai in the Dángs, a distance of about 60 miles, in order to test the capability of the Ambiká for timber-rafting; the results were encouraging. And during the travelling season Mr. Madan, personally made a detailed survey of the river-bed in order to ascertain the location and extent of rocky obstructions within the channel, the removal of which would clear the water-way for timber-rafting; the data obtained will serve for the preparation of a plan and estimate of cost for clearing the channel, which will result in large savings in the conveyance of timber from the Dángs forests to the coast markets and the depôt at Wagreh: some rocks at a rapid near Waghai were blasted away experimentally at a small expenditure, and trees and brushwood growing in the river-bed were cut down and removed. Mr. Madan likewise selected and obtained lands for a timber depôt at Wagreh, at which timber floated

down the Ambiká and Káveri rivers can be landed directly. Mr. Madan displayed commendable energy in floating the timber felled during the season in the Mándvi range down the Tápti river to Fulpáda near Surat, at a very short notice, when it was found that the timber-dealers had combined to defeat the auction sales in the temporary sale depôts within the limits of the range: Mr. Madan reports that his sub-division forest officer, Mr. Krishnáji Bábáji Phadké, who was appointed late in the season, worked well, and was very useful in supervising timber operations in the Upper Dángs.

276. Mr. H. W. Keys, Deputy Conservator of Forests, Fourth Grade, was Divisional Forest Officer of the Panch Maháls during the year, excepting three months from 12th August to 11th November, when he was absent on privilege leave, and Mr. W. A. Wallinger acted in his stead. Mr. Keys has commanded the approval of both his Collector and the Conservator by the satisfactory way in which he has managed his district; and his Collector, Mr. Ommanney, I.C.S., has recorded upon the year's administration that:—

"The financial results shew a satisfactory increase. It is probable that the improved sales are due in some measure to greater watchfulness and strictness in dealing with the material on waste and occupied lands.

"The Collector has again to express approval of the activity and care, which Mr. Keys has devoted to his work."

277. Mr. T. B. Fry has been Divisional Forest Officer of Working Plans during the whole of the year, and has been employed in the Poona, Sátára, Nasik and Thána districts; his establishments have during the year marked out in detail and mapped 443 compartments to serve as coupes, which represent a total area of 17,991 acres to be under exploitation; and in addition to this other compartments, which are not to become coupes at once, have been demarcated. The Conservator has been generally satisfied with Mr. Fry's work.

278. The several Divisional Forest Officers in the Northern Circle have, it will be seen from the foregoing remarks, earned the approval of their respective Collectors to whom they stand in the position of Forest Assistant, by their devotion to, and their intelligent and satisfactory performance of, their duties; and at the same time they have, one and all, and their Sub-Assistant Conservators also, co-operated heartily and loyally with the Conservator of the Circle in carrying out the at-all-times difficult work of forest administration; and they deserve his sincere thanks.

279. Several of the subordinate officers have been specially mentioned by their respective Divisional Forest Officers, for having worked honestly and industriously to promote the forest interests of the State; and as they are all personally known to the Conservator having joined the service under his appointment, and having served all their service under his observation, and as their duties are very trying, and as their position is an extremely difficult one, the Conservator has much pleasure in recording their names in this history as approved servants:—

V. D. P. Rebeiro, L.C.E.
Shaik Abbas Shaik Alli Patrik.
Hasanalli Mahmadalli.
Ganesh Rámchandra Sámant.
Náráyan Rájárám Vadwatharkar.
Sadáshiv Pándurang Limaye.
Abdul Rasul Khájábaksh.
Váman Gopál Tumne.
Rámchandra Rávji Bodwadkar.
Kasam Aga Mirza Aga.
Sitárám Hari Vaze.
Dinkar Náráyan Dámle.
Hari Anant Bhadbhade.
Vishnu Mahádev Tilak.
Báláji Dhonddeo Dhekne.
Ganesh Rámchandra Athavle.
Govind Rámchandra Takle.
Keshav Pándurang Kavthekar.
Harilál Chandraprasád Desái.

280. The discipline of the Circle is looked after very closely by the Divisional Forest Officers as will be seen from the black list of the year.

North Thána Division.—Round guard Shaik Mahmad dismissed for general misconduct and dishonesty. Forest guard Lakshman Bábáji dismissed for being convicted of causing grievous hurt. Náráyan Rághu tried, convicted and sentenced to six months' hard labour for embezzling Government money. 19 round and 57 beat guards were otherwise punished.

South Thána Division.—Seven forest guards were dismissed for various offences.

East Khándesh Division.—One round guard, 2 depôt officers and 20 beat guards were dismissed for misconduct and leaving their posts without leave.

West Khándesh Division.—Twenty-eight round and beat guards were dismissed for misconduct and deserting their posts.

Sátára Division.—One range forest officer was reduced and transferred. Four round guards were dismissed for corrupt practices, one of whom was prosecuted and convicted under Section 409 of the Indian Penal Code, and sentenced to one year's rigorous imprisonment; and seven beat guards were dismissed for corrupt practices, prolonged absence from their posts without leave, &c.

Surat Division.—One forest guard was prosecuted, convicted and sentenced to three months' rigorous imprisonment for extortion.

281. The year 1891-92 has been an extremely unhealthy one in the forests as the following list of casualties will show:—

No.	Division.	Deaths.
1	North Thána...	5
2	East Khándesh	2
3	West Khándesh	8
4	Násik	8
5	Ahmednagar	2
6	Sátára	3
7	Surat	7
8	Panch Maháls	6

282. Influenza prevailed very severely among the Bhils and forest tribes more particularly; it is reported that in the Dángs alone 2,000 persons died from its visitation out of a population of below 33,000 souls; Mahomed Ismáil, range forest officer, Upper Dángs, succumbed to it. In the Panch Maháls the department lost the services of Mr. Dámodhar Moreshwar, ranger, Rs. 60 Grade, and range forest officer of Godhra, an honest, hard-working and excellent officer, who died under jungle fever. One of the forest guards in the Ahmednagar division died of hydrophobia from the bite of a mad dog.

283. The office establishments worked well, as the annual report of the Accountant General exhibits; a few names are especially deserving of mention, *viz.*, Messrs. Keshav Ganesh Vaidya, Mahádev Náráyan Gokhale, Krishnáji Venkatesh Lohokare in the Conservator's office; and Messrs. Shivrám Bhikáji Rangnekar, Trimbak Bhikáji Laváte, Tukárám Vithoba Sonár, Dámodar Tukárám Salsingikar, Bálkrishna Gopal Kher, Annáji Gopál Mujumdár, Trimbak Covind Mahájan, Shankar Rámchandra Sapre, Báji Rámchandra Bápat and Venkatesh Hari Shikhare in the divisional forest offices.

284. The divisional forest offices and records of Poona, Ahmednagar, Sátára, East Khándesh, North Thána, West Khándesh, South Thána, Panch Maháls, Surat, Násik and Working Plans were examined within their respective juirsdictions during the year by the Conservator, who found no cause for

complaint. All the range forest offices and the accounts and records of depôt forest officers and round guards were examined and reported upon during the year by the Divisional and sub-division officers; while the offices of the latter were examined by their immediate superiors.

285. The Forest Classes at the College of Science, Poona, contained 19 students on the rolls at the close of the year. The Conservator of Forests, Northern Circle, sent 5 candidates, the Conservator, Southern Circle, sent 4, and the Conservator, Sind, sent 2, to join the junior class during the year. At the final examination held in September 1891, 4 candidates appeared for and passed the examination. The Forest Classes at the College of Science have every prospect of becoming a success in the future when the projected re-organization of the subordinate staff of the Forest Department will have come into effect, for it is in contemplation to increase the number of professionally educated forest subordinates, and to demand from them a high standard of qualification; and the Forest Classes in the College of Science will supply all the trained subordinates required for the forest services of the Bombay Presidency, especially as one of the European trained forest officers of the Presidency is to be appointed a full-time Professor of Forestry in the College.

286. The Conservator is bound to acknowledge that he has received the greatest consideration and support from Mr. J. K. Spence, I.C.S., Commissioner, Northern Division, and from Mr. G. B. Reid, I.C.S., Commissioner, Central Division, under whose orders he has been serving during the year. The several Collectors of the different forest divisions in the Circle have also, one and all, taken great interest in forest conservancy, and have taken an active part in the management of the forests of their districts, for which they are responsible, and at the same time they have given cordial assistance to the Forest Department: perfect harmony and kindly feeling have pervaded all official dealings between the Conservator and the Collectors and their Assistants, and also between the Revenue and Forest Departments in the districts generally.

Poona, 31st October 1892.

A. T. SHUTTLEWORTH,
Conservator of Forests, N. C.

FORM No. 49.

Forest Department, Bombay, Northern Circle.

Area of Reserved Forests, 1891-92.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st April 1891.		Added during the year.	Excluded or transferred to other heads.	Area on 31st March 1892.		Number and date of Notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
				Sq. m. ac.				Sq. m. ac.		
North Thána ...	Thána ...		238,039	371 599	(a) 23,900	(b) 2,329	259,610	405 410	(a) Nos. 7,187 19-10-91, 7,389C 27-10-91. (b) No. 8,630 14-12-91.	
South Thána ...			208,417	325 417	*155	40,967	167,605	261 565		*Rectification of area.
East Khándesh ...	Khándesh ...		506,539	791 299	(c) 17	(d) 181	506,375	791 135	(c) No. 1950 22-3-92. (d) No. 4634 8-7-91.	
West Khándesh ...			699,505	1,092 625	(e) 6,270	...	705,775	1,102 495	(e) Nos. 1631 & 1634A 7-3-92 1950 22-3-92.	
Násik	Násik		763,186	1,192 306	(f) 55,377	(g) 64	818,499	1,278 579	(f) No. 3189A 9-5-91. (g) Nos. 5810 25-8-91, 6816 3-10-91, 231 13-1-92.	
Ahmednagar ...	Ahmednagar ...		532,272	831 432	(h) 1,394	...	533,666	833 546	(h) Nos. 4559 6-7-91 7346 26-10-91.	
Poona	Poona		475,757	743 237	†(i) 74	(j) 89	475,742	743 222	(i) Nos. 8498A 9-12-91, 3198 9-5-91. (j) Nos. 4514 3-7-91, 3589 26-5-91.	†Out of this 14 acres represent rectification of area.
Sátára	Sátára		439,107	686 67	‡(k) 3,806	(l) 4,948	437,965	684 205	(k) Nos. 3685 29-5-91, 4558 8-7-91. (l) Nos. 5280 5-8-91. 6818 3-10-91.	‡Out of this 2 acres represent rectification of area.
Sholápur	Sholápur ...		177,232	276 592	(m) 391	...	177,623	277 343	(m) Nos. 1952 22-3-92. 1630 3-3-91.	
Surat	Surat		43,665	68 145	(n) 8	...	43,673	68 153	(n) No. 1922 19-3-92.	
Dángs			434,240	678 320	...	...	434,240	678 320		
Kaira	Kaira		39	0 39	...	...	39	0 39		
Panch Maháls ...	Panch Maháls ...		126,658	197 578	(o) 3	(p) 265	126,396	197 316	(o) Nos. 4221 22-6-91, 1949 22-3-92, (p) Nos. 3105 6-5-91, 2000 23-3-92.	
Ahmedabad ...	Ahmedabad ...		21,562	33 442	...	§1	21,561	33 441		§Rectification of area.
		Total ...	46,66,218	7,290 618	91,395	48,844	47,08,769	7,357 289		

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

Dated Poona, 31st October 1892.

FORM No. 49 A.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Area of Protected Forests, 1891-92.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st April 1891.		Added during the year.	Excluded or transferred to other heads.	Area on 31st March 1892.		Number and date of Notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
				Sq. m. ac.				Sq. m. ac.		
North Thána ...	Thána... ...		211,102	329 542	...	(*a*) 35,768	175,334	273 614	(*a*) Nos. 3765 / 3-6-91, 7389 A / 27-10-91.	
South Thána ...			214,805	335 405	...	* 5,113	209,692	327 412	.....	* Out of this, 155 acres represent rectification of area.
East Khándesh ...	Khándesh ...		11,425	17 545	...	(*b*) 11,425	...	...	(*b*) No. 5856 / 28-8-91.	
West Khándesh ...			117,884	184 124	...	(*c*) 4,169	113,715	177 435	(*c*) No. 5856 / 28-8-91.	
Násik	Násik		...	...	...	...	...	...		
Ahmednagar ...	Ahmednagar ...		7,337	11 297	...	...	7,337	11 297		
Poona	Poona		...	...	...	...	...	...		
Sátára	Sátára		648	1 8	...	...	648	1 8		
Sholápur	Sholápur ...		...	...	...	...	...	...		
Surat	Surat		...	...	...	...	...	...		
Dángs			...	...	...	...	...	...		
Kaira	Kaira		...	...	...	...	...	...		
Panch Maháls ...	Panch Maháls ...		73,410	114 450	...	73,410	...	...	Nos. 4438 & 4439 A / 30-6-91.	
Ahmedabad ...	Ahmedabad ...		...	...	...	...	...	...		
		Total ...	636,611	994 451	...	129,885	506,726	791 486		

Poona, 31st October 1892.

A. T. SHUTTLEWORTH,
Conservator of Forests, N. C.

FORM No. 50.

FORM No. 50.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Register of Breaches of Forest Rules during 1891-92.

Forest Division.		Cases pending from 1890-91.	New Cases of the Year.					Total Cases.	Disposed of during the Year.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
North Thána	A	9	2	74	4	78	158	167	140	226	18	33	158	259	9
	B	...	...	96	...	...	96	96	96	212	...	...	96	212	...
	C	...	...	224	...	...	224	...	...	...	...	...	...	...	...
	Total	9	2	394	4	78	478	263	236	438	18	33	254	471	9
South Thána	A	7	6	98	3	16	123	130	83	245	30	66	113	311	17
	B	...	...	254	...	...	254	254	254	362	...	...	254	362	...
	C	...	...	295	...	...	295	...	...	...	...	...	...	...	...
	Total	7	6	647	3	16	672	384	337	607	30	66	367	673	17
East Khándesh	A	4	9	11	19	10	49	53	36	82	8	12	44	94	9
	B	...	9	217	653	691	1,570	1,570	1,570	4,290	...	...	1,570	4,290	...
	C	...	2	4	4	7	17	...	...	...	...	...	...	...	...
	Total	4	20	232	676	708	1,636	1,623	1,606	4,372	8	12	1,614	4,384	9
West Khándesh	A	9	20	10	9	33	72	81	58	135	18	46	76	181	5
	B	...	11	326	725	186	1,248	1,248	1,248	3,833	...	...	1,248	3,833	...
	C	...	135	74	13	3	225	...	...	...	...	...	...	...	...
	Total	9	166	410	747	222	1,545	1,329	1,306	3,968	18	46	1,324	4,014	5
Násik	A	20	4	31	54	27	116	136	100	290	18	42	118	332	18
	B	214	94	545	691	93	1,423	1,637	1,213	2,788	259	588	1,472	3,376	165
	C	...	70	139	25	11	245	...	...	...	...	...	...	...	...
	Total	234	168	715	770	131	1,784	1,773	1,313	3,078	277	630	1,590	3,708	183

Ahmednagar	A	...	...	1	26	112	41	180	180	130	327	36	138	166	465	14
	B	...	534	...	220	2,727	29	2,976	3,510	2,941	7,969	...	...	2,941	7,969	569
	C	...	...	7	97	58	7	169	...	...	...	...	...	...	...	...
	Total	...	534	8	343	2,897	77	3,325	3,690	3,071	8,296	36	138	3,107	8,434	583
Poona	A	...	3	1	61	133	52	247	250	183	491	58	224	241	715	9
	B	...	...	18	428	1,589	26	2,061	2,061	2,059	4,721	2	...	2,061	4,721	...
	C	...	...	29	42	7	...	78	...	...	...	...	...	...	...	...
	Total	...	3	48	531	1,729	78	2,386	2,311	2,242	5,212	60	224	2,302	5,436	9
Sátára	A	...	4	4	38	52	24	118	122	78	290	27	113	105	403	17
	B	...	14	6	460	607	100	1,173	1,187	923	2,299	...	...	923	2,299	264
	C	...	...	8	109	41	6	164	...	...	...	...	...	...	...	...
	Total	...	18	18	607	700	130	1,455	1,309	1,001	2,589	27	113	1,028	2,702	281
Sholápur	A	...	5	...	4	161	19	184	189	121	290	55	202	176	492	13
	B	...	454	...	...	1,582	...	1,582	2,036	1,608	4,703	...	...	1,608	4,703	428
	C	...	...	2	6	...	...	8	...	...	...	...	...	...	...	...
	Total	...	459	2	10	1,743	19	1,774	2,225	1,729	4,993	55	202	1,784	5,195	441
Surat	A	...	...	...	3	...	...	3	3	2	3	1	1	3	4	...
	B	...	...	...	15	2	...	17	17	17	29	...	...	17	29	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total	...	...	...	18	2	...	20	20	19	32	1	1	20	33	...
Panch Maháls	A	...	...	...	62	...	2	64	64	57	110	5	12	62	122	2
	B	...	...	...	131	2	2	135	135	132	169	3	3	135	172	...
	C	...	...	...	68	...	...	68	...	...	...	...	...	...	...	...
	Total	...	...	...	261	2	4	267	199	189	279	8	15	197	294	2
Grand Total	A	...	61	47	418	547	302	1,314	1,375	988	2,489	274	889	1,262	3,378	113
	B	...	1,216	138	2,692	8,578	1,127	12,535	13,751	12,061	31,375	264	591	12,325	31,966	1,426
	C	...	...	253	1,058	148	34	1,493	...	...	...	...	...	...	...	...

N. B.—A means cases taken into Court. B means cases disposed of under Section 67 of Indian Forest Act, 1878. C means undetected cases.

Poona, 31st October 1892.

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

FORM No. 51.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Area of Forest Tracts protected from Fire during the Dry Season, 1892, to accompany Report for 1891-92.

Division.	Forest Tracts.	Year in which protection commenced.	Area actually protected up to 15th June 1891.	During the Dry Season of 1892.			Cost during the Season.	Remarks.
				Area attempted to be protected.	Failures.	Actually protected.		
			Acres.	Acres.	Acres.	Acres.	Rs.	
North Thána ...	Sálsette	1878-79 ...	13,845	15,629	301	15,328	112	
	Bassein...	,, ...	43,368	54,621	1,386	53,235	285	
	Máhim	,, ...	113,723	127,345	3,262	124,083	582	
	Dáhánu	,, ...	147,129	161,127	2,448	158,679	1,225	
	Umbargaon	,, ...						
	Váda	,, ...	77,861	77,676	1,216	76,460	160	
	Total ...		395,926	436,398	8,613	427,785	2,364	
South Thána ...	Bhiwndi	1878-79 ...	15,945	47,917	1,130	46,787	149	
	Sháháp ur	,, ...	112,019	154,678	5,188	148,574	227	
	Khardi	,, ...			916		113	
	Mokháda	,, ...	45,923	49,423	1,032	48,391	32	
	Kalyán...	,, ...	31,473	35,473	1,184	34,289	117	
	Murbád	,, ...	89,990	90,289	970	89,319	63	
	Karjat	,, ...	44,447	.....	...	...	...	
	Khálápur							
	Total ...		339,797	377,780	10,420	367,360	701	
East Khándesh...	Amalner	1878-79 ...	19,725	19,950	690	19,260	...	
	Páchora	,, ...	27,738	29,433	...	29,433	...	
	Bhadgaon	,, ...						
	Bhusával	,, ...	60,524	65,992	1,927	64,065	3	
	Edalabad	,, ...						
	Chálisgaon	,, ...	58,212	60,017	599	59,418	10	
	Chopda...	,, ...	107,210	107,680	1,844	105,836	125	
	Erandol	,, ...	16,215	16,675	265	16,410	2	
	Jalgaon...	,, ...	20,552	21,440	1,690	19,750	...	
	Jámner...	,, ...	41,227	41,592	875	40,717	12	
	Ráver	,, ...	147,421	148,017	25,876	122,141	24	
	Sávda	,, ...						
	Yával	,, ...						
	Total ...		498,824	510,796	33,766	477,030	176	
West Khándesh ...	Dhulia	1878-79 ...	131,092	131,192	1,008	130,184	7	
	Nandurbár	,, ...	83,069	125,754	94,719	31,035	10	
	Navápur	,, ...					2	
	Pimpalner	,, ...	122,945	230,363	65,000	165,363	9	
	Nizámpur	,, ...					35	
	Shahháda	,, ...	10,676	85,676	80,000	5,676	9	
	Shirpur...	,, ...	50,000	206,064	178,905	27,159	71	
	Sindkheda	,, ...	24,883	24,916	4	24,912	10	
	Taloda	,, ...	58,984	284,660	219,676	64,984	19	
	Akráni	,, ...					54	
	Total ...		481,649	1,088,625	639,312	449,313	226	
Násik ...	Násik	1878-79 ...	43,766	43,970	1,908	42,062	20	
	Igatpuri	,, ...	53,560	53,976	694	53,282	14	
	Sinnar	,, ...	35,311	35,371	41	35,330	...	
	Dindori...	,, ...	13	55,377	1,481	53,896	...	
	Niphád...	,, ...	3,444	3,446	1	3,445	...	
	Chándor	,, ...	24,599	24,898	32	24,866	11	
	Yeola	,, ...	31,455	31,496	2	31,494	7	
	Báglan	,, ...	120,821	124,167	4,496	119,671	20	
	Kálvan...	,, ...	104,544	109,364	2,179	107,185	15	
	Peint	,, ...	106,283	107,218	107	107,111	...	
	Málegaon	,, ...	107,340	121,905	216	121,689	23	
	Nándgaon	,, ...	122,010	107,311	164	107,147	18	
	Total ...		753,146	818,499	11,321	807,178	128	

FORM No. 51—*continued.*

Division.	Forest Tracts.	Year in which protection commenced.	Area actually protected up to 15th June 1891.	During the Dry Season of 1892.			Cost during the Season.	Remarks.
				Area attempted to be protected.	Failure.	Actually protected.		
			Acres.	Acres.	Acres.	Acres.	Rs.	
Ahmednagar ...	Nagar	1878-79 ...	40,463	40,463	...	40,463	...	
	Párner	,, ...	64,094	64,094	102	63,992	...	
	Shrígonda	,, ...	44,517	44,557	...	44,557	...	
	Karjat	,, ...	50,152	50,152	...	50,152	...	
	Jámkhed	,, ...	40,029	40,053	7	40,046	...	
	Shevgaon	,, ...	26,502	26,599	2	26,597	...	
	Nevása	,, ...	19,458	19,723	4	19,719	...	
	Ráhuri	,, ...	48,887	48,888	...	48,888	...	
	Kopargaon	,, ...	9,088	9,087	3	9,084	...	
	Sangamner	,, ...	86,577	86,665	...	86,665	...	
	Akola	,, ...	110,644	111,243	256	110,987	...	
	Total ...		540,411	541,524	374	541,150	...	
Poona	Junnar	1878-79 ...	61,764	61,897	1,284	60,613	...	
	Indápur	,, ...	62,467	62,745	...	62,745	...	
	Khed	,, ...	55,530	56,754	1,045	55,709	...	
	Ambegaon	,, ...	44,114	44,151	23	44,128	...	
	Sirúr	,, ...	20,777	20,753	...	20,753	...	
	Purandhar	,, ...	25,636	25,827	128	25,699	...	
	Bhimthadi	,, ...	53,269	52,258	...	52,258	...	
	Bárámati	,, ...	19,379	19,379	...	19,379	...	
	Haveli	,, ...	49,866	50,073	208	49,865	11	
	Mulshi	,, ...	28,085	28,218	248	27,970	...	
	Mával	,, ...	54,049	54,590	869	53,721	...	
	Total ...		474,936	476,645	3,805	472,840	11	
Sátára	Mahábaleshvar ...	1878-79 ...	41,285	41,394	24	41,370	...	
	Mán	,, ...	56,099	56,270	...	56,270	...	
	Khatáv	,, ...	16,503	20,177	1	20,176	...	
	Karád	,, ...	35,986	35,973	2	35,971	...	
	Wái	,, ...	22,713	24,892	...	24,892	...	
	Koregaon	,, ...	28,773	28,772	...	28,772	...	
	Sátára	,, ...	21,314	22,263	135	22,128	...	
	Tásgaon	,, ...	20,008	20,005	...	20,005	...	
	Khanddla	,, ...	14,190	14,189	...	14,189	...	
	Jávli	,, ...	50,643	50,822	105	50,717	...	
	Khánápur	,, ...	32,182	32,084	1	32,083	...	
	Válva	,, ...	29,507	28,408	20	28,186	...	
	Shirála	,, ...			202			
	Pátan	,, ...	67,602	63,435	503	62,932	...	
	Total ...		436,805	438,684	993	437,691	...	
Sholápur	Sholápur	1878-79 ...	38,599	38,542	...	38,542	...	
	Bársi	,, ...	8,286	8,536	133	8,403	...	
	Mádha	,, ...	31,326	31,422	5	31,417	...	
	Karmála	,, ...	50,996	51,134	84	51,050	...	
	Pandharpur	,, ...	6,094	6,109	...	6,109	...	
	Sángola	,, ...	20,473	20,528	...	20,528	...	
	Málsiras	,, ...	21,432	21,445	...	21,445	...	
	Total ...		177,206	177,716	222	177,494	...	
Surat	Mándvi	1878-79 ...	39,508	40,839	329	40,510	9	
	Dángs	,, ...	2,000	434,240	432,240	2,000	24	
	Chikhli	,, ...	805	825	14	811	10	
	Bulsár and Párdi ...	,, ...	1,551	1,559	...	1,559	...	
	Bárdoli	,, ...	450	450	...	450	...	
	Total ...		44,314	477,913	432,583	45,330	43	
Panch Mahals ...	Godhra	1878-79 ...	83,586	75,936	5,498	70,438	...	
	Kálol	,, ...	21,763	22,263	1,435	20,828	2	
	Halol	,, ...	27,620	28,500	1,895	26,605	...	
	Dohad	,, ...	45,860	46,538	1,150	45,388	...	
	Jhálod	,, ...	24,397	26,872	155	26,717	...	
	Total ...		203,226	200,109	10,133	189,976	2	
	Grand Total ...		4,346,240	5,544,689	1,151,542	4,393,147	3,651	

A. T. SHUTTLEWORTH,
Conservator of Forests. Northern Circle.

Poona, 31st October 1892.

FORM No. 52.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Area of Plantations, 1891-92.

Division.	Name of Plantation.	Area in acres. On 1st April 1891.	Added during the year.	Excluded during the year.	Area on 31st March 1892.	Receipts. Of the year.	Charges. Of the year.	Remarks.
	Regular Plantations.	Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	
North Thána	Sálsette	107	10	...	117	...	3	
	Bassein	2	...	...	2	...	...	
	Máhim	1,880	...	...	1,880	...	33	
	Dáhánu	4	...	...	4	...	14	
	Váda ...	92	...	...	92	...	20	
	Umbargaon ...	130	...	...	130	...	136	
	Total ...	2,215	10	...	2,225	...	206	
South Thána	Bhiwndi	336	20	171	185	...	92	
	Mokháda	10	52	...	62	...	70	
	Sháhápur	39	45	...	84	...	219	
	Kalyán	5	68	...	73	...	177	
	Murbád	...	16	...	16	...	69	
	Khardi	...	24	...	24	...	162	
	Total ...	390	225	171	444	...	789	
East Khándesh	Nil ...	...	...	...	...	...	...	
West Khándesh	Akráni	...	...	...	...	...	...	
	Dhulia	15	...	...	15	...	490	
	Nizámpur	25	...	25	...	...	...	
	Pimpalner	2	...	...	2	...	47	
	Taloda	...	...	...	...	...	...	
	Total ...	42	...	25	17	...	537	
Násik	Nil ...	...	...	...	...	...	...	
Ahmednagar	Nagar Dongargan ..	142	...	...	142	...	190	
Poona	Junnar	...	66	...	66	...	10	
	Khed	...	2	...	2	...	...	
	Háveli	...	22	...	22	...	4	
	Bárámati	...	26	...	26	...	10	
	Bhimthadi	...	74	...	74	...	8	
	Indápur	...	179	...	179	...	10	
	Sirur ..	...	39	...	39	...	10	
	Total ...	...	408	...	408	...	52	
Sátára	Khatáv	286	1	...	287	...	8	
	Koregaon	242	6	...	248	...	20	
	Karád	281	1	...	282	...	23	
	Khandála	103	...	...	103	...	...	
	Válva	76	4	...	80	...	77	
	Sátára	73	2	...	75	...	70	
	Wai ...	245	...	...	245	...	...	
	Mán ...	158	2	...	160	...	51	
	Jávli ...	42	...	...	42	...	...	
	Mahábaleshvar	1,124	...	...	1,124	...	39	
	Tásgaon	302	...	...	302	...	...	
	Pátan...	167	1	...	168	...	34	
	Khánápur	69	...	...	69	...	...	
	Shirála	26	...	...	26	...	...	
	Total ...	3,194	17	...	3,211	...	322	
Sholápur	Nil ...	...	...	...	...	...	...	
Surat	Nil ...	...	...	...	...	...	...	
Panch Mahále	Kálol ...	103	119	...	222	...	129	
	Hálol ...	10	4	...	14	...	130	
	Total ...	113	123	...	236	...	259	
	Total, Regular Plantations...	6,096	783	196	6,683	...	2,355	

FORM No. 52—*continued.*

Division.	Name of Plantation.	Area in acres. On 1st April 1891.	Area in acres. Added during the year.	Area in acres. Excluded during the year.	Area in acres. Area on 31st March 1892.	Receipts. Of the year.	Charges. Of the year.	Remarks.
	Cultural Operations.	Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	
North Thána	Sálsette	578	110	...	688	...	180	
	Bassein	3,123	1,148	...	4,271	...	10	
	Máhim	4,748	1,716	...	6,464	...	3	
	Dáhánu	4,538	1,897	...	6,435	...	4	
	Umbargaon	1,506	788	...	2,294	...	177	
	Váda	1,367	1,545	...	2,912	...	212	
	Total	15,860	7,204	...	23,064	..	586	
South Thána	Bhiwndi	751	22	...	773	...	...	
	Sháhápur	761	9	...	770	...	...	
	Khardi	416	19	...	435	...	...	
	Mokháda	337	17	...	354	...	...	
	Kalyán	1,274	39	...	1,313	...	...	
	Murbád	745	16	...	761	...	...	
	Total	4,284	122	...	4,406	...	...	
East Khándesh	Amalner	2,255	202	....	2,457	...	19	
	Bhadgaon	322	14	...	336	...	1	
	Bhusával	2,377	522	...	2,899	...	3	
	Chálisgaon	742	109	...	851	...	1	
	Chopda	717	172	...	889	...	7	
	Edalabad	942	509	...	1,451	...	...	
	Erandol	5,120	161	...	5,281	...	4	
	Jalgaon	823	156	...	979	...	26	
	Jámner	1,058	201	...	1,259	...	5	
	Páchora	65	30	...	95	...	...	
	Ráver	387	210	...	597	...	5	
	Sávda	516	508	...	1,024	...	2	
	Yával	525	226	...	751	...	2	
	Total	15,849	3,020	...	18,869	...	75	
West Khándesh	Akráni	211	28	...	239	...	...	
	Dhulia	4,248	26	...	4,274	...	...	
	Nandurbár	746	43	...	789	...	...	
	Navápur	1,410	...	...	1,410	...	...	
	Nizámpur	490	15	...	505	...	...	
	Pimpalner	1,435	28	...	1,463	...	...	
	Sháháda	3,410	67	...	3,477	...	...	
	Shirpur	1,748	23	.	1,771	...	...	
	Sindkheda	6,177	...	.	6,177	...	59	
	Taloda	1,055	35	..	1,090	...	9	
	Total	20,930	265	...	21,195	...	68	
Násik	Násik	477	6	...	483	...	413	
	Igatpuri	415	1	...	416	...	50	
	Chándvad	791	...	45	746	...	64	
	Sinnar	294	201	...	495	...	93	
	Yeola	2,286	...	.	2,286	...	255	
	Niphád	498	26	80	444	...	54	
	Dindori	507	1	269	239	...	10	
	Málegaon	1,953	16	...	1,969	...	60	
	Nándgaon	359	242	...	601	...	102	
	Báglán	430	202	...	632	...	94	
	Kalvan	118	110	...	228	...	35	
	Peint	60	60	...	120	...	6	
	Total	8,188	865	394	8,659	...	1,236	
Ahmednagar	Nagar	1,070	1,051	...	2,121	...	222	
	Párner	668	354	...	1,022	...	124	
	Shrigonda	1,531	833	...	2,364	...	401	
	Karjat	724	688	...	1,412	...	182	
	Jámkhed	2,052	396	...	2,448	...	30	
	Shevgaon	661	615	...	1,276	...	82	
	Nevása	290	543	...	833	...	87	
	Ráhuri	600	432	...	1,032	...	85	
	Kopargaon	727	489	...	1,216	...	148	
	Sangamner	2,064	2,572	...	4,636	...	329	
	Akola	711	783	...	1,494	...	144	
	Total	11,098	8,756	...	19,854	...	1,834	

FORM No. 52—*concluded.*

Division.	Name of Plantation.	Area in acres.				Receipts.	Charges.	Remarks.
		On 1st April 1891.	Added during the year.	Excluded during the year.	Area on 31st March 1892.	Of the year.		
		Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	
Poona	Junnar	1,012	...	...	1,012	...	145	
	Indápur	3,645	...	...	3,645	...	141	
	Khed	6,188	...	...	6,188	...	11	
	Ambegaon	2,299	...	...	2,299	...	...	
	Sirúr	5,883	...	...	5,883	...	.118	
	Purandhar	5,973	...	...	5,973	..	1	
	Bhimthadi	3,773	...	...	3,773	...	294	
	Bárámati	2,114	...	...	2,114	...	176	
	Haveli	1,485	...	...	1,485	...	706	
	Mulshi	849	...	...	849	...	...	
	Mával	1,119	...	...	1,119	...	...	
	Plantation by Forest Guards	5,597	1,187	...	6,784	...	...	
	Total ...	39,937	1,187	...	41,124	...	1,592	
Sátára	Mahábaleshvar	6,398	72	...	6,470	...	47	
	Shirála	720	21	...	741	...	41	
	Sátára	3,171	41	...	3,212	...	18	
	Mán	12,820	34	...	12,854	...	7	
	Válva	4,466	25	...	4,491	...	10	
	Khatáv	1,239	110	...	1,349	...	60	
	Karád	21,669	31	...	21,700	...	21	
	Tásgaon	1,349	25	...	1,374	...	25	
	Khánápur	5,752	9	...	5,761	...	13	
	Khandála	4,351	12	...	4,363	...	11	
	Pátan	6,173	24	...	6,197	...	19	
	Jávli	9,483	915	...	10,398	...	8	
	Wái	18,124	13	...	18,137	...	31	
	Koregaon	19,071	32	...	19,103	...	33	
	Total ...	114,786	1,364	...	116,150	...	344	
Sholápur ...	Sholápūr	4,501	386	...	4,887	...	94	
	Bársi	2,817	49	...	2,866	...	4	
	Mádha	8,799	1,159	...	9,958	...	83	
	Pandharpur	3,626	1,002	...	4,628	...	80	
	Karmála	9,370	216	...	9,586	...	74	
	Sángola	7,025	971	...	7,996	...	43	
	Málsiras	23,292	6	...	23,298	...	58	
	Total ...	59,430	3,789	...	63,219	...	436	
Surat	Dángs	...	...	...	...	...	...	
	Chorási	...	...	...	...	...	...	
	Bulsár	181	5	...	186	...	16	
	Párdi	52	42	...	94	...	8	
	Chikhli	162	41	...	203	...	32	
	Mándvi	611	177	...	788	...	797	
	Total ...	1,006	265	...	1,271	...	853	
Panch Mahals ...	Godhra	246	82	...	328	...	...	
	Kálol	42	16	...	58	...	...	
	Hálol	59	28	...	87	...	...	
	Dohad	65	22	...	87	...	...	
	Jhálod	37	12	...	49	...	...	
	Total ...	449	160	...	609	...	...	
	Total, Cultural Operations..	291,817	26,997	394	318,420	...	7,024	
	Add—Total Regular Plantations	6,096	783	196	6,683	..	2,355	
	Grand Total ...	297,913	27,780	590	325,103	...	9,379	

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

Poona, 31st October 1892.

FORM No. 54.

Forest Department, Bombay, Northern Circle.

Outturn (in Cubic feet, solid) of Timber and Fuel during the year 1891-92 and Agency of Exploitation.

Division.	Timber in the rough; Logs.					Timber the rough; poles.					Sown or Squared Timber.					Miscellaneous.					Fuel.					Total Outturn.
	Government.	Purchasers.	Free Grantees.	Right-holders.	Total.	Government.	Purchasers.	Free Grantees.	Right-holders.	Total.	Government.	Purchasers.	Free Grantees	Right-holders.	Total.	Government.	Purchasers.	Free Grantees.	Right-holders.	Total.	Government.	Purchasers.	Free Grantees.	Right-holders	Total.	
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C..ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
North Thána ...	...	..	...	...	...	10,839	970,950	...	...	981,789	...	...	...	...	...	...	Bamboos No. 246,887 Cart-loads ... 8,560	...	...	Bamboos No. 246,887 Cart-loads ... 8,560	79,602	1,204,388	...	...	1,283,990	Bamboos No. 246,887 Cart-loads ... 8,560 2,265,779
South Thána ..	...	..	...	...	...	17,247	563,670	5,439	...	586,356	...	...	...	...	...	...	Bamboos No. 303,922 Head-loads...1,843 Cart-loads ... 740	...	...	Bamboos No. 303,922 Head-loads... 1,843 Cart ,, ... 740	...	1,659,862	...	...	1,659,862	Bamboos No. 303,922 Head-loads ...1,843 Cart ,, ... 740 2,246,218
East Khándesh ...	...	213,000	...	...	213,000	19,532	...	...	...	19,532	...	...	...	...	...	...	Bamboos No. 407,845	...	...	Bamboos No. 407,845	440,910	1,135,280	...	..	1,576,190	Bamboos No. 407,845 1,808,722
West Khándesh ...	11,003	..	...	...	11,003	66,997	...	...	...	66,997	...	...	...	...	...	67,812	Bamboos No. 171,782 213,750	1,300	...	Bamboos No. 171,782 282,862	385,562	167,900	...	...	553,462	Bamboos No. 171,782 914,324
Násik	...	641,262	1,114	...	642,376	26,802	...	...	...	26,802	...	...	...	...	...	...	Bamboos No. 196,203 Head-loads... 9,989	...	...	Bamboos No. 196,203 Head-loads ...9,989	227,984	90,568	...	33,100	351,652	Bamboos No. 196,203 Head-loads ...9,989 1,020,830
Ahmednagar ...	...	...	...	...	...	35,098	...	3,729	...	38,827	...	...	...	...	...	92	Bamboos No. 32,847 305	750	...	Bamboos No. 32,847 1,147	154,818	62,797	...	...	217,615	Bamboos 32,847 257,589
Poona	...	193,632	...	...	193,632	50,785	142	3,797	...	54,724	...	...	...	...	...	...	Bamboos No. 148,422	...	...	Bamboos 148,422	81,081	42,849	...	...	123,930	Bamboos No. 148,422 372,286
Sátára	...	...	...	...	...	20,041	2,230	...	...	22,271	...	...	...	...	...	...	Bamboos No. 14,675 Head-loads... 1,968	...	...	Bamboos No. 14,675 Head-loads... 1,968	244,920	9,854	...	...	254,774	Bamboos No. 14,675 Head-loads... 1,968 277,015
Sholápur	931	...	...	...	931	...	...	...	...	...	...	...	...	...	...	...	129	...	...	129	15,130	1,692	...	...	16,822	17,882
Surat	104,020	...	...	...	104,020	72,645	...	...	...	72,645	...	...	...	...	...	...	Bamboos No. 727,032	...	...	Bamboos No. 727,032	18,491	...	...	...	18,491	Bamboos No. 727,032 195,156
Panch Mahals ...	...	2,307	57,744	...	60,051	24,464	17,117	...	...	41,581	...	...	...	...	...	Bamboos No. 533 951	Bamboos No. 142,815 17,772 Cart-loads ... 99 Head ,, ... 4	1,316	...	Bamboos No. 143,378 20,039 Cart-loads ... 99 Head ,, ... 4	210,700	239,400	200	...	450,300	Bamboos No. 143,378 571,971 Cart-loads ... 99 Head ,, ... 4
Total ...	115,954	1,050,201	58,858	...	1,225,013	344,450	1,554,109	12,965	...	1,911,524	...	...	...	...	...	68,855 Bamboos No. 533	231,956 Bamboos No. 2,392,462 Cart-loads... 9,399 Head ,, ... 13,804	3,366	...	304,177 Bamboos No. 2,392,993 Cart-loads ... 9,399 Head ,, ...13,804	1,359,198	4,614,590	200	33,100	6,507,088	Bamboos No. 2,392,993 Head-loads . 13,804 Cart ,, ... 9,399 9,947,802

Poona, 31st October 1892.

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

FORM No. 55.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Outturn of Minor Forest Produce.

Division.	Description of Produce.	PRODUCE REMOVED OR UTILISED. By Government Agency. Quantity.	By Government Agency. Value.	By purchasers. Quantity.	By purchasers. Value.	By Free Grants. Quantity.	By Free Grants. Value.	By Right-holders. Quantity.	By Right-holders. Value.	Total. Quantity.	Total. Value.
			Rs.		Rs.		Rs.		Rs.		Rs.
North Thána.	Myrobolans .. Khandis.	70 3 0	1,770	....	..	..	..	..	..	70 3 0	1,770
	Apta and Tembhurni leaves ..	....	....	....	1,431	..	..	..	..	....	1,431
	Palas leaves	....	....	....	167	..	..	..	..	....	167
	Bel leaves	.....	....	....	92	..	..	..	..	....	92
	Brab-tree leaves and fruits ..	....	....	....	1,858	..	..	..	..	....	1,858
	Chilhar bark	....	....	....	136	..	..	..	..	....	136
	Gum	....	....	....	322	..	..	..	..	....	322
	Bherda fruits	....	....	....	52	..	..	..	..	....	52
	Plantain leaves	....	....	....	62	..	..	..	..	....	62
	Total ..	....	1,770	....	4,120	..	..	..	..	....	5,890
South Thána.	Hirda .. .. ..Khandis.	143 7 0	4,250	....	..	..	..	..	..	143 7 0	4,250
	Apta and Tembhurni leaves ..	....	....	....	1,872	..	..	..	..	....	1,872
	Gum	....	....	....	50	..	..	..	..	....	50
	Karvi .. .. .. Cart-loads.	....	....	485	124	..	..	..	..	485	124
	Do. .. .. .. Head-loads.	....	....	344	11	..	..	..	..	344	11
	Thorns .. .. Cart-loads.	....	....	69	39	..	..	..	..	69	39
	Mowra flowers	....	....	....	64	..	..	..	..	....	64
	Dead palm brab-trees	....	....	6	5	..	..	..	..	6	5
	Earth, stone and kanker ..	....	....	....	88	..	..	..	..	....	88
	Cess on palm trees	....	....	50	6	..	..	..	..	50	6
	Rent of quarrying stones ..	....	....	....	8	..	..	..	..	....	8
	Total ..	....	4,250	....	2,267	..	..	..	..	....	6,517
East Khándesh.	Stone .. .. Cart-loads.	....	....	3,030	437	..	..	..	..	3,030	437
	Thorns .. .. do.	....	....	4,314	297	..	..	..	..	4,314	297
	Manure .. .. do.	....	....	271	82	..	..	..	..	271	82
	Earth .. .. do.	....	....	128	16	..	..	..	..	128	16
	Anjan leaves .. do.	....	....	531	133	..	..	..	..	531	133
	Do. ..Head loads.	....	....	376	12	..	..	..	..	376	12
	Rosha grass stills	....	....	6	120	..	..	..	..	6	120
	Miscellaneous	....	....	....	111	..	..	..	..	....	111
	Total ..	....	....	....	1,208	..	..	..	..	....	1,208
West Khándesh.	Rosha grass stills..	....	....	141	6,777	..	..	..	..	141	6,777
	Reeds and Karvi .. Cart-loads.	....	....	935	123	..	..	..	..	935	123
	Thorns .. .. do.	....	....	1,094	66	..	..	..	..	1,094	66
	Stone .. .. do.	....	....	1,666	592	..	..	..	..	1,666	592
	Lime and Earth .. do.	....	....	1,182	148	..	..	..	..	1,182	148
	Manure .. .. do.	....	....	613	144	..	..	..	..	613	144
	Mango fruits	....	....	....	193	..	..	..	..	....	193
	Anjan leaves .. Cart-loads.	....	....	25	6	..	..	..	..	25	6
	Total ..	....	....	....	8,049	..	..	..	..	....	8,049
Násik.	Karvi .. .. Head-loads	....	....	32,165	558	..	..	..	..	32,165	558
	Thorns .. .. Cubic feet	....	....	1,965	19	..	..	..	..	1,965	19
	Ráb .. .. .. Head-loads.	....	....	6,655	109	..	..	..	..	6,655	109
	Hirda .. .. Khandis.	2	30	47	1,401	..	..	..	..	49	1,431
	Apta, Anjan and Tembhurni leaves	....	....	....	1,208	..	..	..	..	....	1,208
	Mango fruits	....	....	4,000	4	..	..	..	..	4,000	4
	Kirmáti Oman ..Head-loads.	....	....	333	11	..	..	..	..	333	11
	Tarwad	....	....	....	103	..	..	..	..	....	103
	Stone and lime-stone ..C. feet.	....	....	23,641	108	..	..	..	..	23,641	108
	Manure .. .. Cart-loads.	....	....	36	13	..	..	..	..	36	13
	Earth .. .. do.	....	....	....	..	86	3	..	..	86	3
	Rosha oil stills	....	....	64	739	..	..	..	..	64	739
	Sora and Catechu furnaces ..	....	....	11	46	..	..	..	..	11	46
	Total ..	....	30	....	4,319	..	3	..	..	....	4,352
Ahmednagar.	Hirda .. .. Khandis.	100	3,100	....	..	..	..	..	..	100	3,100
	Stone .. .. Cart-loads.	....	....	8,279	730	..	..	..	..	8,279	730
	Karvi .. .. Head-loads.	....	....	909	28	212	7	..	..	1,121	35
	Kharmati .. .. do.	....	....	1,199	19	37	1	..	..	1,236	20
	Babul pods	....	....	....	399	..	..	..	..	....	399
	Fruits	....	....	....	19	..	..	..	..	....	19
	Tarwad	....	....	....	164	..	..	..	..	....	164
	Miscellaneous	....	....	....	11	..	..	..	..	....	11
	Total ..	....	3,100	....	1,370	..	8	..	..	....	4,478
Poona.	Hirda .. .. Khandis.	....	....	265 5 8	6,081	..	..	..	..	265 5 8	6,081
	Tarwad	....	....	....	570	..	..	..	..	....	570
	Shikakai	....	....	....	120	..	200	..	..	....	320
	Roofing material, Kárvi, &c... .. .. Head-loads	....	....	2,364	243	..	..	..	..	2,364	243
	Do. .. .. Cart-loads.			22						22	
	Stone, kunkar and earth .. .. Cart-loads	....	....	669	215	..	2,878	..	..	669	3,093
	Mád trees	....	....	432	27	..	..	..	..	432	27
	Fruits, &c.	....	....	....	37	..	..	..	..	..	37
	Ráb	....	....	....	..	..	550	..	..	....	550
	Total ..	....	....	.. ..	7,293	..	3,628	..	..	....	10,921

FORM No. 55—*continued.*

Division.	Description of Produce.	Produce removed or utilised.									
		By Government Agency.		By purchasers.		By Free Grants.		By Right-holders.		Total.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
			Rs.		Rs.		Rs.		Rs.		Rs.
Sátára.	Hirda .. .. Khandis.	741 10 13	19,410	....	..	..	..	..	..	741 10 13	19,410
	Shikakái	....	....	....	1,275	..	..	..	..	....	1,275
	Brushwood .. .. Cart-loads.	....	....	948	1,069	..	..	..	..	948	1,069
	Stones .. .. Do.	....	....	15,565	964	..	..	..	..	15,565	964
	Earth .. .. Do.	....	....	20	3	..	..	..	..	20	3
	Fruits	....	....	1,255	3	..	..	..	..	1,255	3
	Tarwad	....	....	....	22	..	..	..	..	....	22
	Aloe .. .. Cart-loads.	....	....	2	4	..	..	..	..	2	4
	Total ..	....	19,410	....	3,340	..	..	..	..	....	22,750
Sholápur.	Bábul bark .. .. Cubic feet.	11¼	16	....	..	..	..	..	..	11¼	16
	Tamarind, Mango and Kavat fruits	....	....	....	19	..	..	..	..	....	19
	Stone .. .. Cart-loads.	....	....	225	34	..	..	..	..	225	34
	Earth .. .. Do.	....	....	10	2	..	..	..	..	10	2
	Tarwad	....	....	....	456	..	..	..	..	....	456
	Gum	....	....	....	27	..	..	..	..	.. ..	27
	Pods of Karanj trees	....	....	....	2	..	..	..	..	....	2
	Total ..	....	16	....	540	..	..	..	..	.. ..	556
Surat.	Temru, Khakar and Ashindra leaves .. Bundles.	....	....	1,598,095	569	..	..	..	..	1,598,095	569
	Maunds.			51						51	
	Contract.			....						....	
	Honey .. .. .. Seers.	....	....	3,661	39	..	..	..	..	3,661	39
	Wax .. .. Do.	....	....	354	4	..	..	..	..	354	4
	Boru .. .. .. Cart-loads.	....	.. .	99	27	..	..	..	..	99	27
	Mhowra .. .. Maunds.	....	....	6,684	614	..	..	..	..	6,684	614
	Bamboo mats .. .. No.	....	....	3,259	322	..	..	..	..	3,259	322
	Tapping of date trees	....	....	1,299	149	..	..	..	..	1,299	149
	Do. palm trees	....	. ..	250	63	..	..	..	..	250	63
	Rosha oil stills	....	....	5	80	..	..	..	..	5	80
	Mango fruits .. Maunds.	....	.. ..	2	3	..	..	..	..	2	3
	Miscellaneous	....	....	....	306	..	..	..	..	....	306
	Total ..	....	....	....	2,176	..	..	..	..	....	2,176
Panch Mahals.	Mhowra flowers	....	....	....	1,870	..	..	..	..	....	1,870
	Thorns .. .. Cart-loads.	....	....	21	7	..	..	..	..	21	7
	Kankar .. .. Do.	....	....	10	5	..	..	..	..	10	5
	Sand .. .. .. Cubic feet.	....	....	20,500	26	..	..	..	..	20,500	26
	Earth .. .. .. Yards.	....	....	10	1	..	..	..	..	10	1
	Seed .. .. .. Maunds.	457	457	....	..	..	..	..	..	457	457
	Miscellaneous	....	....	....	33	..	..	..	..	....	33
	Total ..	....	457	....	1,942	..	..	..	..	....	2,399

Poona, 31st October 1892.

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

FORM No. 56.

Forest Department, Bombay, Northern Circle.

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1891-92.

Particulars.	Number or Quantity.	Cubic feet.	Total of each head. Number or Quantity.	Total of each head. Cubic feet.
Balance at the commencement of the year.				
TIMBER.				
North Thána . Jungle wood pieces ..	63	189	63	189
South Thána . Teak pieces ..	15,727	47,181	15,727	47,181
West Khándesh. Teak logs and rafters..	7,663	4,704	42,257	26,152
West Khándesh. Do. pieces..	34,594	21,448		
Násik .. .. Teak rafters..	2,235	27,714	2,235	27,714
Ahmednagar . Do. .	9	18	9	18
Sátára.. .. Jungle wood pieces ..	5,118	2,559	5,118	2,559
Surat.. .. Teak beams ..	170	595	811	1,204
Surat.. .. Do. pieces ..	80	150		
Surat.. .. Jungle wood pieces ..	561	459		
Panch Mahals. Teak rafters	143	50	143	50
Total Balance . ..	..	....	66,363	1,05,067
Received from the forests in Depôts.				
Teak logs and rafters	3,55,493	2,81,521		
Do. pieces	1,11,652	1,37,095		
Do. beams	4,608	16,128		
Junglewood pieces	9,215	24,989		
Sadada	6	72		
Khair	41	400		
Beo	3	59		
Sandalwood	1	38		
Kanti	23	119		
			4,81,042	4,60,431
Total			5,47,405	5,65,488

Particulars.	Number or Quantity.	Cubic feet.	Total of each head. Number or Quantity.	Total of each head. Cubic feet.
Sold locally.				
Teak logs and rafters	3,57,820	3,02,795		
Do. pieces	1,50,011	1,58,674		
Do. beams	3,000	10,500		
Junglewood pieces	10,276	19,361		
Sadada do.	6	72		
Khair do.	41	400		
Beo do.	3	59		
Sandalwood do.	1	38		
Kanti	23	119		
			5,21,181	4,92,018
Sold from Depôts.				
Junglewood pieces	46	700	46	700
Free grants.				
Teak logs and rafters	569	437	569	437
Used by the Department.				
Teak logs and rafters .. .	560	200	560	200
Lost or written off.				
Teak logs and rafters	69	18	69	18
Balance at the close of the year.				
North Thána . Teak pieces ..	1,172	3,516		
North Thána . Jungle wood pieces.. ..	273	819		
			1,445	4,335
South Thána.. Do. ..	2,009	6,027	2,009	6,027
West Khándesh. Teak pieces ..	8,184	4,092	8,184	4,092
Násik .. .. Teak logs and rafters ..	20	120	20	120
Ahmednagar . Do. ..	8	12	8	12
Sátára.. .. Do. ..	967	249		
Sátára.. .. Junglewood pieces.. .	2,023	1,016		
			2,990	1,245
Surat .. .. Teak logs and rafters ..	5,503	9,296		
Surat .. .. Do. pieces	2,674	30,516		
Surat .. .. Dó. beams ..	1,778	6,223		
Surat .. .. Junglewood pieces.. ..	330	273		
			10,285	55,308
Panch Mahals. Teak logs and rafters ..	27	880		
Panch Mahals. Do. pieces ..	12	76		
			39	956
Total Balance ..	..	....	24,980	72,115
Total ..	..	....	547,405	5,65,488

Particulars.	Kh. m.		Kh. m.	
Balance in hand at the commencement of the year.				
FIREWOOD.				
North Thána	266 0	3,325		
South Thána	5,904 0	73,800		
West Khándesh	..	2,47,416		
Násik	..	15,025		
Ahmednagar	..	1,489		
Sátára	890 27	40,392		
Sholápur	..	1,462½		
			7,060 27	3,85,859½
Received from the forests in Depôts	16,130 0	18,59,198$\frac{5}{11}$	16,130 0	18,59,198$\frac{5}{11}$
Total, firewood ..	..	....	23,210 27	22,45,058

Particulars.	Kh. m. Number or Quantity.	Cubic feet.	Kh. m. Number or Quantity.	Kh. m. Cubic feet.
Sold locally..	18,651 0	20,34,555		
Sold from Depôts	292 27	18,905		
Free grants	..	57,443		
Lost or written off..	598 0	22,926		
			19,541 27	21,33,829
Balance in hand at the close of the year.				
North Thána	3,667 0	45,837	3,667 0	45,837
South Thána	2 0	25	2 0	25
West Khándesh	..	20,226	....	20,226
Sátára	..	44,775	....	44,775
Sholápur	..	366	....	366
Total Balance ..	..	....	3,669 0	1,11,229
Total, firewood ..	..	....	23,210 27	22,45,058

FORM No. 56—*continued.*

Particulars.	Number or Quantity.	Cubic feet.	Total of each Head. Number or Quantity.	Total of each Head. Cubic feet.	Particulars.	Number or Quantity.	Cubic feet.	Total of each Head. Number or Quantity.	Total of each Head. Cubic feet.
					BAMBOOS.				
Balance at the commencement of the year.					*Sold locally.*				
Surat	628	.....	628	.....	Bamboos	628	.....	628	.....
					Balance at the close of the year.				
					Bamboos	...	.....	.....	.....
Total ...	...	.....	628	.....	Total ...	...	.....	628	.....
					OTHER MINOR PRODUCE.				
Balance at the commencement of the year.		K. m. lbs.		Kh. m. lbs.	*Sold locally.*				
South Thana. Seed	...	40 25 9	.....	40 25 9	Hirda	...	1,048 5 12	.....	1,048 5 12
Násik ... ... Hirda	...	0 13 20	.....	0 13 20	*Used by the Department.*				
Ahmednagar. do.	...	48 13 24	.....	.....	Hirda	...	0 15 23	.....	
Ahmednagar. Seed	...	22 22 16½	.....	71 8 12½	Seed	...	323 14 14	.....	
									334 2 9
					Lost or written off.				
					Hirda	...	95 16 7½	.....	95 16 7½
					Balance at the close of the year.				
Sátára... ... Do.	...	43 0 9	.....	.....	South Thána. Hirda	...	8 7 6	.....	
Sátára... ... Hirda	...	47 18 6½	.....	90 18 15½	South Thána. Seed	...	5 17 26	.....	
									13 25 4
Panch Mahals. Seed	...	4 1 1	.....	4 1 1	Násik ... Do.	...	1 2 12	.....	1 2 12
					Ahmednagar. Hirda	...	44 1 20	.....	
					Ahmednagar. Seed	...	32 22 20	.....	
									76 24 12
Total Balance ...	...	.....	.....	207 11 2					
Received from the Forests in Depóts.					Sátára ... Do.	...	40 2 8	.....	
					Sátára ... Hirda	...	124 27 15	.....	
									165 1 23
Hirda	...	1,225 13 25	.....	1,225 13 25	Panch Mahals ... Seed	...	12 24 4	.....	12 24 4
Seed	...	304 21 ½	.....	304 21 ½					
					Total Balance ...	...	.....	.....	269 21 27
Total ...	...	.....	.....	1,737 17 27½	Total ...	...	.....	.....	1,737 17 27½

Poona, 31st October 1892.

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

FORM No. 57.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Abstract showing the Value of Timber and other Produce at Sale Depôts for the year 1891-92.

Description of Timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in Value.		Remarks.
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.	
North Thána Division.			Rs.			Rs.			
Junglewood	63	189	5	1,445	4,335	120	...	...	
Firewood ... Khandis.	266	3,325	200	3,667	45,837½	1,800	...	...	
Total ...	.....	...	205	.....	...	1,920	1,715	...	
South Thána Division.									
Timber pieces	15,727	47,181		2,009	6,027	265	...	...	
Firewood ... Khandis.	5,904	73,800		2	25	2	...	...	
Hirda nuts	.....	...	2,200	K. m. lbs. 5 17 26	...	167	...	...	
Miscellaneous seeds	K. m. lbs. 40 24 9	...		K. m. lbs. 8 7 6	...	...	...	...	
Total ...	.....	...	2,200	.....	...	434	...	1,766	
East Khándesh Division.									
Miscellaneous seeds	.....	...	...	K. m. lbs. 35 14 16	...	...	...	...	
Total ...	.....	...	...	.....	...	...	...	...	
West Khándesh Division.									
Teak pieces	42,197	26,162	4,250	8,184	4,050	800	...	...	
Firewood	.....	247,416	4,700	.....	20,226	350	...	...	
Total ...	.....	...	8,950	.....	...	1,150	...	7,800	
Násik Division.									
Teak rafters	2,235	27,714	909	20	120	80	...	...	
Firewood	.....	*18,025	...	.....	...	...	...	...	* Valueless.
Hirda seed	K. m. lbs. 0 13 20	...	13	K. m. lbs. 1 2 12	...	22	...	...	
Total ...	.....	...	922	.....	..	102	...	820	
Ahmednagar Division.									
Teak rafters	9	18	1	8	12	3	...	...	
Firewood	.....	1,439	48	.....	...	...	...	...	
Hirda	K. m. lbs. *48 13 24	...	...	K. m. lbs. *44 1 20	...	...	...	...	* Dryage.
Miscellaneous seeds	K. m. lbs. 22 22 16½	...	...	K. m. lbs. 32 22 20½	...	...	...	...	
Total ...	.....	...	49	.....	..	3	...	46	
Poona Division.									
...	.....	...	...	.....	...	...	...	...	
Total ...	.....	...	...	.....	...	...	...	...	
Sátára Division.									
Teak pieces	.....	...	...	*967	249	186	...	...	* Out of these, 94 pieces to be written off.
Junglewood rafters	5,118	2,559	770	2,023	1,016	290	...	...	
Firewood ... Khandis.	K. m. lbs. 890 27 0	40,092	1,110	K. m. lbs. 156 9 23	10,100	267	...	...	
Do.	.....	...	...	.....	34,675	732	...	...	
Hirda	K. m. lbs. (1) 47 18 6½	...	...	(2) 11,414¾ Pailies.	...	32	...	...	(1) Dryage. (2) The whole stock except 193 páilis is on account of dryage.
Miscellaneous seeds	K. m. lbs. 43 0 9	...	...	K. m. lbs. 40 2 18	...	...	...	...	
Total ...	.....	...	1,880	.....	...	1,507	...	373	

FORM No. 57—*continued.*

Description of Timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in Value.		Remarks.
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.	
Sholápur Division.			Rs.			Rs.			
Firewood	.....	1,462½	106	.....	366¼	27	...	...	
Total ...	.....	...	106	.....	...	27	...	79	
Surat Division.									
Teak logs ... Khandis.	5,416	67,700	80,000	.....	38,717	40,000	...	...	
Teak pieces	245	855	233	8,082	16,591	4,000	...	...	
Junglewood pieces	444	1,332	200	330	990	100	...	...	
Teak disks	5	3	1	1	1	1	...	...	
Teak stumps	... ..	...	...	621	1,863	100	...	...	
Total ...	.....	...	80,434	.....	...	44,201	...	36,233	
Panch Mahâls Division.									
Teak rafters	143	50	7	39	956	5	...	...	
Miscellaneous seeds... ...	K. m. lbs. 4 1 ½	...	113	K. m. lbs. 12 24 2	...	360	...	...	
Total ...	.....	...	120	.....	...	365	245	...	
Grand Total ...	.....	...	94,866	.....	...	49,709	1,960	47,117	

Net difference against the year Rs. 45,157.

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

Poona, 31st October 1892.

FORM No. 57A.

Forest Department, Bombay, Northern Circle.

Abstract showing the value of live and dead stock for the year 1891-92.

Description of live and dead stock.	On hand at commencement of the year.		On hand at close of the Year.		Difference in Value.		Remarks.
	Number.	Value.	Number.	Value.	In favour of the year.	Against the year.	
		Rs.		Rs.	Rs.	Rs.	
Direction.							
Office tent	1	432	1	432	...	...	
Ráuti	1	95	1	95	...	...	
Hill tent 14′×14′	...	...	1	541	...	...	
Tools, plant and office furniture ...	...	1,070	...	1,070	...	...	
Total ...	...	1,597	...	2,138	541	...	
North Thána Division.							
Parol bungalow	1	1,200	1	1,200	...	...	
Náka house at Mándvi	1	250	1	250	...	...	
Do. at Mánikpur	1	603	1	603	...	...	
Forest stations	38	570	38	570	...	...	
Do. Posts	82	840	82	840	...	...	
Office tent	*1	273	*1	273	...	...	* Worn out and useless.
Do.	1	433	1	433	...	...	
Small ráutis	2	188	2	188	...	...	
Great coats	226	1,359	226	1,359	...	...	
Tools, plant and office furniture ...	...	2,604	...	2,446	...	...	
Total ...	...	8,320	...	8,162	...	158	
South Thána Division.							
Office tent	1	433	1	433	...	...	
Small ráutis	2	186	2	186	...	...	
Great coats	263	1,713	†201	1,309	...	...	† 62 great coats, remained with the Range Forest Officers, Karjat and Khálápur, transferred to Southern Circle.
Tools, plant and office furniture ...	...	838	...	856	...	...	
Total ...	...	3,170	...	2,784	...	386	
East Khándesh Division.							
Office tent	1	248	1	248	...	...	
Great coats	192	1,254	192	1,254	...	...	
Tools, plant and office furniture ...	...	770	...	805	...	...	
Total ...	...	2,272	...	2,307	35	...	
West Khándesh Division.							
Office tent	1	387	1	387	...	...	
Cabul pál	1	126	1	126	...	...	
Great coats	219	1,428	219	1,428	...	...	
Tools, plant and office furniture ...	...	5,931	...	5,931	...	...	
Total ...	...	7,872	...	7,872	...	...	
Násik Division.							
Office tent	2	300	2	544	...	...	
Great coats	303	1,976	303	1,976	...	...	
Tools, plant and office furniture ...	...	258	...	258	...	...	
Total ...	...	2,534	...	2,778	244	...	

Description of live and dead stock.	On hand at commencement of the year.		On hand at close of the Year.		Difference in Value.		Remarks.
	Number.	Value.	Number.	Value.	In favour of the year.	Against the year.	
Ahmednagar Division.		Rs.		Rs.	Rs.	Rs.	
Hill tent 13′ × 13′	1	387	1	387	...	...	
Sleeping pál 12′ × 12′ double fly ...	1	246	...	...	...	...	
Office room, Range Forest Office, Karjat...	1	214	1	214	...	...	
Hirda depôt at Singanwádi	1	25	1	25	...	...	
Forest rest-houses	3	90	3	90	...	...	
Great coats	208	1,357	208	1,357	...	...	
Tools, plant and office furniture ...	...	986	...	1,115	...	...	
Total ...	...	3,305	...	3,188	...	117	
Poona Division.							
Office tent	1	273	1	433	...	...	
Range Forest Officer's offices ...	5	7,752	5	7,752	...	...	
Great coats	313	2,040	315	2,054	...	...	
Tools, plant and office furniture ...	...	922	...	922	...	...	
Total ...	...	10,987	...	11,161	174	...	
Sátára Division.							
Bungalow at Malcolmpeth	1	700	1	700	...	...	
Pál with double fly	1	245	...	...	...	...	
Hill tent 13′ × 13′	...	...	1	433	...	...	
Cabul pál 7′ × 7′	...	...	1	111	...	...	
Great coats	246	1,606	246	1,606	...	...	
Tools, plant and office furniture ...	...	969	...	921	...	...	
Total ...	...	3,520	...	3,771	251	...	
Sholápur Division.							
Office tent	1	387	1	387	...	...	
Great coats	119	777	119	777	...	...	
Tools, plant and office furniture ...	...	231	...	231	...	...	
Total ...	...	1,395	...	1,395	...	...	
Surat Division.							
Office tent, 12 feet	1	246	1	246	...	...	
Do. 13′ × 13′	1	433	1	433	...	...	
Andhatri Bungalow	1	291	1	291	...	...	
Dhadhawada do.	1	80	1	80	...	...	
Tárápore do.	1	100	1	100	...	...	
Large Waghai do.	1	1,099	1	1,099	...	...	
Small do. do.	1		1				
Large Pimpri do.	1	499	1	499	...	...	
Do. Garvi do.	1	1,012	1	1,012	...	...	
Small do. do.	1	288	1	288	...	...	
Great coats	65	455	65	455	...	...	
Tools, plant and office furniture ...	...	1,837	...	1,837	...	...	
Total ...	...	6,340	...	6,340	...	...	

Description of live and dead stock.	On hand at commencement of the Year.		On hand at close of the Year.		Difference in Value.		Remarks.
	Number.	Value.	Number.	Value.	In favour of the year.	Against the year.	
Panch Mahâls Division.		Rs.		Rs.	Rs.	Rs.	
Rest houses and depôt	34	2,410	45	2,525	...	...	
Bungalow	1	8,200	1	8,200	...	...	
Office tent	1	433	1	433	...	...	
Great coats	110	717	110	717	...	...	
Tools, plant and office furniture ...	...	1,159	...	1,324	...	...	
Total ...	...	12,919	...	13,199	280	...	
Working Plans Division.							
Office tent	1	285	1	285	...	...	
Tools, plant and office furniture ...	...	1,103	...	1,103	...	...	
Total ...	...	1,388	...	1,388	...	...	

Poona, 31st October 1892.

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

FORM No. 58.

FORM No. 58.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Summary of Revenue and Expenditure of the different Divisions during the year 1891-92.

Budget Heads.	Direction.	North Thána.	South Thána.	East Khándesh.	West Khándesh.	Ahmednagar.	Násik.	Poona.	Sátára.	Sholápur.	Surat.	Panch Mahals.	Working Plans.	Total for 1891-92.	Budget Estimate.
REVENUE.	Rs a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—Timber and other Produce removed from the Forests by Government Agency—															
a. Timber	.....	2,174 11 6	2,531 8 9	10,448 7 9	48,985 4 5	7,977 0 0	3,102 12 2	26,129 8 6	13,618 0 9	90 7 3	48,136 1 1	4,197 3 0	.....	1,67,391 1 2	2,17,840 0 0
b. Firewood and charcoal	.....	415 7 9	1 11 6	14,229 9 0	11,014 6 0	755 5 0	3,794 11 6	1,796 4 0	4,229 9 9	1,293 6 3	500 8 0	3,718 5 0	.....	41,749 3 9	43,750 0 0
c. Bamboos	.....	.....	.....	.....	58 0 0	.....	.....	.....	.....	.....	.....	1 8 0	.....	59 8 0	.....
d. Sandalwood	.....	.....	.....	.....	.....	.....	3 11 0	0 8 6	.....	17 9 0	.....	.....	.....	21 12 6	.....
e. Grass and other minor produce .	.....	1,792 3 3	4,075 6 9	.....	1 4 0	3,100 0 0	30 8 0	.....	19,109 9 2	16 5 0	.....	.....	.....	28,425 4 2	27,900 0 0
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—															
a. Timber	.....	2,50,307 0 9	96,413 6 0	4,354 4 0	8,883 12 0	158 4 0	33,488 7 6	234 11 3	801 0 6	175 11 9	33,319 8 5	55,230 5 2	.....	4,83,366 7 4	4,99,130 0 0
b. Firewood and charcoal	.....	6,904 11 10	1,507 3 3	9,458 12 6	3,394 1 0	3,479 14 9	1,381 2 0	8,315 0 1	467 8 7	4,337 10 0	786 12 0	2,294 7 0	.....	42,327 3 0	24,660 0 0
c. Bamboos	.....	10,663 0 7	7,489 0 6	4,673 11 1	2,600 2 6	341 12 3	4,701 15 3	1,540 4 7	329 1 9	.....	16,306 4 7	1,660 10 6	.....	50,305 15 7	42,050 0 0
d. Grazing and fodder grass ..	.....	13,754 8 6	4,938 2 9	85,032 10 1	1,01,863 4 3	39,289 11 4	67,596 7 1	47,372 0 6	44,783 5 3	23,689 13 5	995 15 0	6,605 11 0	.....	4,35,922 9 2	3,45,250 0 0
e. Other minor produce	.....	4,901 15 6	2,265 14 3	1,208 4 0	8,096 15 6	1,369 10 6	4,544 6 5	7,413 9 0	3,339 10 6	541 3 3	2,224 15 6	1,942 2 0	.....	37,848 10 5	34,100 0 0
III.—Drift and Waif Wood and Confiscated Forest Produce	.....	494 1 6	804 7 4	396 6 6	823 7 0	108 14 2	116 9 9	260 2 7	103 2 1	29 2 3	505 7 1	172 10 9	.....	3,814 7 9	3,570 0 0
IV.—Revenue from Forests not managed by Government—															
a Duty on foreign timber and other forest produce	... ..	. ..	.....	14,176 6 3	9,410 2 9	.....	.....	.....	.....	.....	.....	16 0 0	.....	23,602 9 0	30,160 0 0
b. Revenue from shared and private forests...	.. ..	613 0 7	1,635 7 1	.....	.....	.....	.....	294 5 7	.....	.....	615 2 10	.....	.....	3,188 0 1	4,250 0 0
V.—Miscellaneous.															
a. Fines and forfeitures	.....	8,615 5 7	4,213 7 8	.....	.....	.....	264 5 9	258 7 11	52 13 4	16 12 10	.....	124 15 9	.....	13,546 4 10	5,150 0 0
b. Refunds	.....	108 15 4	1 10 6	0 4 0	50 7 2	0 4 0	15 15 5	295 2 6	39 4 3	22 12 7	1 0 5	13 11 3	.....	549 7 5	10 0 0
c. Other sources	3 8 0	4,685 6 3	1,561 1 9	6,832 9 0	7,762 0 1	830 0 10	3,472 7 0	1,278 0 2	1,468 10 11	409 15 0	877 9 5	1,125 6 4	2 8 0	30,309 2 9	11,180 0 0
Total Revenue ...	3 8 0	3,05,430 8 11	1,27,438 8 1	1,50,811 4 2	2,02,943 3 5	57,410 12 10	1,22,513 6 10	95,189 1 2	88,641 12 10	30,640 12 7	1,04,299 4 4	77,102 15 9	2 8 0	13,62,427 10 11	12,89,000 0 0
EXPENDITURE.															
A.—CONSERVANCY AND WORKS.															
I.—Timber and other Produce removed from the Forests by Government Agency—															
a. Timber	... .	2,346 3 8	986 8 6	1,338 10 0	4,157 15 1	1,261 3 6	206 4 10	3,087 9 3	1,469 15 6	5 8 0	14,714 12 3	996 3 9	.....	30,570 14 4	31,585 0 0
b. Firewood and charcoal	.....	633 5 0	0 4 0	2,999 2 0	1,835 10 1	.....	1,149 15 7	355 7 9	1,342 14 0	100 3 0	.....	.....	.....	8,416 13 5	9,250 0 0
c. Bamboos	.....	.....	.....	.....	10 0 0	.....	.....	.....	.....	.....	1 6 0	.....	.....	11 6 0	.....
d. Sandalwood...	... ..	.....	.....	.....	.. ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce.	.....	497 7 8	977 11 10	62 9 3	.....	851 8 9	40 2 1	29 12 5	5,099 12 11	37 10 4	.....	.....	.....	7,596 11 3	9,440 0 0
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers	.....	6,363 1 4	3,856 10 0	6,304 15 3	5,615 5 9	1,890 3 6	3,075 11 1	924 1 7	1,073 11 6	649 9 3	2,667 7 10	880 7 9	.....	33,301 7 10	31,225 0 0
III.—Drift and Waif Wood and Confiscated Forest Produce	. ...	36 13 6	40 5 8	32 1 3	0 15 0	2 4 3	6 8 0	4 7 0	.....	.....	1 15 9	3 12 6	.....	129 2 11	250 0 0
IV.—Revenue from Forests not managed by Government—															
a. Duty on foreign timber and other forest produce	. ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Revenue from shared and private forests	.....	.....	.....	.....	.....	.....	.....	202 6 1	.....	.....	.....	.....	.....	202 6 1	200 0 0

V.—Rent of Leased Forests and Payments to Shareholders in Forests managed by Government.	.....	.....	639 14 0	.....	.....	23 0 10	4 15 0	2,110 4 7	3,733 12 5	.....	12,995 3 6	.....	.....	19,507 2 4	17,750 0 0
VI.—Live Stock, Stores, Tools and Plant—															
a. Purchase of cattle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Feed and keep of cattle	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
c. Purchase of stores, tools and plant	541 0 0	103 11 10	83 1 4	.....	82 9 3	139 4 3	782 15 0	1,099 10 3	729 9 6	18 3 0	24 2 0	160 6 0	.....	3,764 8 5	850 0 0
VII.—Communications and Buildings—															
a. Roads and bridges	.....	.....	.....	.....	.....	49 14 0	.....	.....	.....	12 6 0	656 13 3	.....	.....	719 1 3	1,550 0 0
b. Buildings	.....	747 9 0	2,315 8 0	154 0 0	888 5 0	1 6 6	491 3 0	75 5 0	36 1 0	.....	1,394 7 4	270 9 6	.....	6,287 6 4	10,035 0 0
c. Other works	.....	.....	22 8 0	.....	.....	37 11 0	.....	.....	.....	.....	146 3 3	.....	.....	206 6 3	500 0 0
VIII.—Demarcation, Improvement and Extension of Forests—															
a. Demarcation	... ..	4,898 8 3	248 12 11	227 4 3	7,896 6 1	2,020 3 0	5,134 11 11	4,074 14 1	2,107 5 0	397 3 7	2,161 9 7	723 1 5	.....	29,890 0 1	30,800 0 0
b. Compensation for land and rights	... ..	.....	12 0 0	4,797 15 1	381 0 0	688 5 4	120 0 0	11,759 1 1	94 4 0	851 1 6	1,869 0 0	672 15 10	.....	21,245 10 10	20,225 0 0
c. Surveys and Working Plans ...	.....	881 10 2	15,348 9 5	80 15 9	378 6 6	872 13 4	1,614 3 11	8,465 13 10	440 12 0	2,691 4 6	267 1 10	546 6 10	6,947 2 6	38,535 4 7	66,490 0 0
d. Sowing and planting	.....	795 5 5	1,030 9 9	74 12 9	604 10 2	2,024 8 10	1,236 2 9	1,614 0 10	665 14 11	435 11 1	852 14 4	258 12 7	.....	9,620 7 5	14,150 0 0
e. Protection from fire	.....	2,364 0 9	715 14 0	176 0 0	226 6 9	.....	127 7 6	11 4 0	.....	.....	43 5 3	2 0 0	.....	3,666 5 6	4,300 0 0
f. Other Works	.....	2,323 6 0	1,779 5 1	.....	.....	3,318 0 9	124 0 6	3,854 14 2	198 12 6	1,448 2 5	16 9 3	.....	.....	13,090 2 8	13,000 0 0
IX.—Miscellaneous—															
a. Refunds	.....	.....	... ..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Law charges	.....	.....	45 1 10	.....	2 4 0	.....	.....	13 5 1	3 8 0	.....	.....	.....	.....	64 2 11	.....
c. Other charges	26 4 0	440 7 10	428 6 7	329 13 10	917 11 5	104 1 8	1,832 3 3	—128 0 0	1,279 2 10	63 12 8	208 6 10	—6 13 0	.....	5,495 9 11	29,380 0 0
Total, A.—Conservancy and Works ...	567 4 0	22,428 10 5	28,531 2 11	16,578 3 5	22,997 8 4	13,314 9 6	15,916 8 5	37,584 5 0	18,275 11 1	6,710 11 4	37,931 6 3	4,507 15 2	6,947 2 6	2,32,321 2 4	2,90,430 0 0
B.—ESTABLISHMENTS.															
I.—Salaries—															
a. Conservators	18,000 0 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18,000 0 0	18,000 0 0
b. Superior officers	1,100 0 0	9,036 10 8	7,880 10 3	10,800 0 0	6,005 0 0	6,911 6 4	11,563 9 2	14,491 15 0	9,550 0 0	6,600 0 0	3,271 12 0	6,575 0 0	9,600 0 0	1,03,385 15 5	1,08,000 0 0
c. Subordinate Forest and Depôt establishments	.....	25,811 13 4	24,782 4 6	23,337 15 2	23,710 4 7	23,965 8 2	32,615 4 10	34,343 10 5	27,754 11 1	12,546 5 9	8,703 9 1	11,598 6 9	.....	2,49,169 13 8	2,04,716 0 0
d Office establishments	6,672 6 4	3,123 10 3	3,202 13 4	2,113 9 7	2,551 4 8	2,131 4 9	2,477 1 3	2,602 14 11	2,506 14 7	1,753 10 3	2,157 8 8	1,875 9 11	1,027 4 0	34,256 1 3	33,840 0 0
e. Deputation and special allowances...	483 0 0	120 0 0	... ..	561 10 6	.....	.....	... .	.....	.....	.....	... .	.....	.....	1,164 10 6	1,741 0 0
II.—Travelling Allowances—															
a. Conservators	2,400 0 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,400 0 0	2,400 0 0
b. Superior officers	300 0 0	3,022 4 2	2,477 6 9	1,822 5 2	1,806 9 10	1,800 0 0	2,552 8 0	2,517 1 1	2,105 15 0	1,800 0 0	1,908 4 6	1,652 9 8	1,800 0 0	25,865 0 11	26,640 0 0
c Subordinate Forest and Depôt establishments	.....	988 10 5	1,086 3 8	1,640 15 4	1,389 9 3	1,660 4 1	2,137 2 3	1,612 10 2	1,857 0 5	877 1 4	841 13 4	682 11 11	331 3 5	14,774 2 2	15,000 0 0
d. Office establishments	1,641 0 10	985 2 3	993 3 4	753 14 3	847 12 8	779 5 7	922 9 1	947 5 7	866 10 6	639 8 6	785 11 7	618 10 9	.....	11,142 2 4	12,800 0 0
III.—Contingencies—															
a. Stationery	23 6 9	389 0 8	389 2 10	372 0 7	350 12 1	380 3 0	501 0 0	382 12 6	577 7 5	213 4 7	201 4 6	225 14 2	.....	4,016 4 4	4,120 0 0
b Carriage of tents and records...	456 5 6	406 12 3	386 1 6	131 13 6	261 13 6	157 13 0	489 13 4	282 8 6	359 7 0	95 8 6	217 9 9	179 3 0	.....	3,424 7 4	3,250 0 0
c. Rents, rates and taxes	480 0 0	232 10 0	172 6 8	300 0 0	296 9 2	312 0 0	119 0 0	252 0 0	47 8 0	31 8 0	100 0 0	.....	.....	2,313 9 10	2,480 0 0
d. Pay of Police guards	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Official postage	410 7 0	661 6 0	871 10 0	675 9 0	778 5 0	736 3 0	1,175 14 0	907 0 6	990 6 0	388 15 0	388 3 6	287 3 3	.....	8,304 2 3	6,760 0 0
f Sundries	2,170 8 1	236 4 11	208 6 3	492 12 7	941 0 10	146 10 9	159 1 11	269 3 9	283 11 11	56 12 6	87 4 11	133 14 7	.....	5,585 13 0	6,199 0 0
Payments to officers of other Provinces	1,240 11 3	.....	.....	.....	... ..	.....	.....	.....	.....	... ..	.....	.....	... ..	1,240 11 3	.....
Total, B. Establishments ...	35,407 13 0	45,014 4 11	42,553 5 1	43,002 9 8	38,939 1 7	38,980 10 8	55,012 15 10	58,619 2 5	47,259 12 8	25,002 5 5	18,663 1 10	23,859 3 0	12,758 8 2	4,85,072 14 3	5,06,686 0 0
Grand Total of Expenditure ..	35,975 1 0	67,442 15 4	71,084 8 0	59,580 18 1	61,936 9 11	52,295 4 2	70,959 8 3	96,203 7 5	65,535 7 9	31,713 0 9	56,594 8 1	28,367 2 2	19,705 10 8	7,17,394 0 7	7,97,116 0 0 5,716 0 0 7,91,400 0 0

No. F./12543

Forwarded to the Conservator of Forests, Northern Circle, under Section 238 of the Forest Department Code.

Bombay, Accountant General's Office, dated 3rd August 1892.

GODREZJEE D. PADUMJEE,
For Accountant General.

FORM No. 59.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Annual Account Current for the year 1891-92.

	R. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To Opening Balance	.....	678 8 6	By 1.—Refunds and Drawbacks—		
„ Land Revenue and Miscellaneous other items.	.....	1,975 14 0	Refunds, Divided Heads, Forest ...	.....	2,546 15 4
„ VIII.—Assessed Taxes—Income Tax—			„ 11.—Forest (as per Summary) ...	.....	7,17,394 0 7
Deductions by Government from Salaries and Pensions ...	.....	4,305 0 1	„ 19.—Law and Justice—		
			Jails, District Jails, Contingencies ...	.....	.....
„ IX.—Forest (as per Summary) ...	.....	13,62,427 10 11	„ 30.—Stationery and Printing—		
			Government Central Press Contingencies	.....	0 5 0
„ XII.—Interest—			Miscellaneous		
Interest on Arrears of Revenue ...	.....	189 7 11	„ Revenue Deposits (Forests)	.....	55,642 4 8
			„ Cheques and Bills (Forest cheques cancelled)	.....	2,755 7 2
„ XVI.—Law and Justice—Fines, Fees, &c. —Magisterial Fines	.....	100 0 0	„ Advances Recoverable—		
			Forest Advances	4,39,120 7 2	
„ XXIII.—Stationery and Printing—			Tentage Advances	400 0 0	
Stationery Receipts—			Objection Book Advances	2,241 12 5	
Sale-proceeds of Stationery Boxes.	.....	2 2 0			4,41,762 3 7
Other Press Receipts—			„ Cash Recoveries	.....	14,971 9 2
Government Central Press ...	.....	25 0 0			
„ Revenue Deposits—(Forests)	.....	67,619 14 5	„ Forest Remittances—		
			Remittances to Treasuries ...	14,25,270 15 10	
„ Cheques and Bills (Departmental cheque), Forest	.....	7,85,007 4 6	Inter-divisional Transfers	82,802 11 3	
			Inter-departmental Transfers ...	4,362 13 7	
					15,12,436 8 8
„ Advances Recoverable—			„ Accounts Current—		
Forest Advances	4,37,021 8 4		Account between India and Bombay—		
Tentage Advances	133 5 0		III.—Items adjustable by India ...	.....	.....
Objection Book Advances	1,903 12 10		Bengal Uncovenanted Service Family Pension Fund ...	.....	23 10 0
		4,39,058 10 2			

„ Cash Recoveries	.....			14,971	9	2	„ Military Orphan Fund	.....		47	0	0
„ Forest Remittances—							„ Account between Bombay and Public Works Department, Bombay—(Ordinary Branches—					
Remittances to Treasuries	452	1	3									
Inter-divisional Transfers	47,861	5	8									
Inter-departmental Transfers	23,398	0	0									
				71,711	6	11	IV.—Items adjustable by Public Works Department—Inter-departmental Charges.	.....		419	8	0
„ Bombay Uncovenanted Service Family Pension Fund, Widows' Branch ...	.....			1,981	7	7	„ Account between Bombay and Public Works Department (Railway Branch) Railway—					
„ Account between India and Bombay—							IV.—Items Adjustable by Public Works Department	.....		.....		
III.—Items adjustable by India—												
Bengal Military Fund	.....			450	0	0	„ Suspense	.....		3	0	0
Do. do. Orphan Fund ...	.....			250	10	4						
Bengal Uncovenanted Service Family Pension Fund	.....			23	10	0	Closing Balance ...	.....		3,222	1	6
Miscellaneous	.....			2	0	0						
„ Account between Bombay and Public Works Department, Bombay—												
IV.—Payments into Treasuries by Civil Officers on account of Public Works Department	.....			441	5	2						
„ Suspense...	.....			3	0	0						
Total ...	.....			27,51,224	9	8	Total ...	.....		27,51,224	9	8

No. $\frac{F.}{12543}$.

Forwarded to the Conservator of Forests, Northern Circle, under Section 238 of the Forest Department Code.

Accountant General's Office,
Bombay, 3rd August 1892.

GODREZJI D. PUDUMJI,
For Accountant General.

FORM No. 60.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Revenue received and Outstandings on account of Revenue during 1891-92.

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	REMARKS.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
North Thána ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	.....	2,174 11 6	2,174 11 6	2,174 11 6	.....	
	b. Firewood and charcoal	.....	415 7 9	415 7 9	415 7 9	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ...	.....	1,792 3 3	1,792 3 3	1,792 3 3	.....	
	II.—Timber and other Produce removed from the Forests by the Consumers or Purchasers—						
	a. Timber	.....	2,52,655 4 9	2,52,655 4 9	2,50,307 0 9	2,348 4 0	
	b. Firewood and charcoal	.....	6,904 11 10	6,904 11 10	6,904 11 10	.....	
	c. Bamboos	.....	10,663 0 7	10,663 0 7	10,663 0 7	.....	
	d. Grazing and fodder grass ...	.....	13,754 8 6	13,754 8 6	13,754 8 6	.....	
	e. Other minor produce	.....	4,901 15 6	4,901 15 6	4,901 15 6	.....	
	III.—Drift and Waif wood and confiscated forest produce	.....	494 1 6	494 1 6	494 1 6	.....	
	Total ...	.....	2,93,756 1 2	2,93,756 1 2	2,91,407 13 2	2,348 4 0	
South Thána ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	.....	2,531 8 9	2,531 8 9	2,531 8 9	.....	
	b. Firewood and charcoal	.....	1 11 6	1 11 6	1 11 6	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood...	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ...	.....	4,075 6 9	4,075 6 9	4,075 6 9	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	66 9 0	99,835 7 0	99,902 0 0	96,413 6 0	3,488 10 0	The sum of Rs. 34-10-0 has been written off as per conservator's No. 383 of 23rd April 1892 in April 1892 and Rs. 3,454 have been recovered in May 1892.
	b. Firewood and charcoal	.....	1,507 3 3	1,507 3 3	1,507 3 3	.....	
	c. Bamboos	.....	7,489 0 6	7,489 0 6	7,489 0 6	.....	
	d. Grazing and fodder grass ...	.....	4,938 2 9	4,938 2 9	4,938 2 9	.....	

	e. Other minor produce	.....		2,265	14	3	2,265	14	3	2,265	14	3	.....	
	III.—Drift and Waif wood and Confiscated forest produce	.....		804	7	4	804	7	4	804	7	4	.....	
	Total ...	66	9	0	1,23,448	14	1	1,23,515	7	1	1,20,026	13	1	3,488	10	0
East Khándesh.	*I.—Timber and other Produce removed from the Forests by Government Agency—*															
	a. Timber	.....		10,448	7	9	10,448	7	9	10,448	7	9	.....			
	b. Firewood and charcoal	.....		14,229	9	0	14,229	9	0	14,229	9	0	.....			
	c. Bamboos	.....		.....			.....			.....			.....			
	d. Sandalwood	.....		.....			.....			.....			.....			
	e. Grass and other minor produce ...	.....		.....			.....			.....			.....			
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—															
	a. Timber	.....		4,354	4	0	4,354	4	0	4,354	4	0	.....			
	b. Firewood and charcoal	.....		9,458	12	6	9,458	12	6	9,458	12	6	.....			
	c. Bamboos	.....		4,673	11	1	4,673	11	1	4,673	11	1	.....			
	d. Grazing and fodder grass ...	.....		85,032	10	1	85,032	10	1	85,032	10	1	.....			
	e. Other minor produce	.....		1,208	4	0	1,208	4	0	1,208	4	0	.....			
	III.—Drift and Waif wood and Confiscated forest produce	.....		396	6	6	396	6	6	396	6	6	.....			
	Total ...	.....		1,29,802	1	11	1,29,802	1	11	1,29,802	1	11	.....			
West Khándesh.	*I.—Timber and other Produce removed from the Forests by Government Agency—*															
	a. Timber	.....		56,804	4	5	56,804	4	5	48,985	4	5	7,819	0	0	
	b. Firewood and charcoal	.....		11,014	6	0	11,014	6	0	11,014	6	0	.....			
	c. Bamboos	.....		58	0	0	58	0	0	58	0	0	.....			
	d. Sandalwood	.....		.....			.....			.....			.....			
	e. Grass and other minor produce ...	.....		1	4	0	1	4	0	1	4	0	.....			
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—															
	a. Timber	.....		8,883	12	0	8,883	12	0	8,883	12	0	.....			
	b. Firewood and charcoal	.....		3,394	1	0	3,394	1	0	3,394	1	0	.....			
	c. Bamboos	.....		2,600	2	6	2,600	2	6	2,600	2	6	.....			
	d. Grazing and fodder grass ...	.....		1,01,863	4	3	1,01,863	4	3	1,01,863	4	3	.....			
	e. Other minor produce	.....		8,096	15	6	8,096	15	6	8,096	15	6	.....			
	III.—Drift and Waif wood and Confiscated forest produce	.....		823	7	9	823	7	9	823	7	9	.....			
	Total ...	.....		1,93,539	9	5	1,93,539	9	5	1,85,720	9	5	7,819	0	0	

FORM No. 60—*continued.*

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p	Rs. a. p.	
Násik	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	348 14 0	2,768 0 2	3,116 14 2	3,102 12 2	14 2 0	
	b. Firewood and charcoal	.....	3,794 11 6	3,794 11 6	3,794 11 6	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood	.....	3 11 0	3 11 0	3 11 0	.....	
	e. Grass and other minor produce ...	.....	30 8 0	30 8 0	30 8 0	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	309 0 0	33,621 15 6	33,930 15 6	33,488 7 6	442 8 0	
	b. Firewood and charcoal	.....	1,381 2 0	1,381 2 0	1,381 2 0	.....	
	c. Bamboos	.....	4,701 15 3	4,701 15 3	4,701 15 3	.....	
	d. Grazing and fodder grass ...	3 12 0	68,069 11 1	68,073 7 1	67,596 7 1	477 0 0	
	e. Other minor produce	300 0 0	4,639 9 2	4,939 9 2	4,544 6 5	395 2 9	
	III.—Drift and Waif wood and Confiscated forest produce	.....	116 9 9	116 9 9	116 9 9	.....	
	Total ...	961 10 0	1,19,127 13 5	1,20,089 7 5	1,18,760 10 8	1,328 12 9	
Ahmednagar ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	.....	7,977 0 0	7,977 0 0	7,977 0 0	.....	
	b. Firewood and charcoal	.....	755 5 0	755 5 0	755 5 0	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ...	.....	3,100 0 0	3,100 0 0	3,100 0 0	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	.....	158 4 0	158 4 0	158 4 0	.....	
	b. Firewood and charcoal	155 0 0	3,324 14 9	3,479 14 9	3,479 14 9	.....	
	c. Bamboos	.....	341 12 3	341 12 3	341 12 3	.....	
	d. Grazing and fodder grass ...	.....	39,289 11 4	39,289 11 4	39,289 11 4	.....	

	e. Other minor produce	.....			1,369	10	6	1,369	10	6	1,369	10	6	.....		
	III.—Drift and Waif wood and Confiscated forest produce	.....			108	14	2	108	14	2	108	14	2	.....		
	Total ...	155	0	0	56,425	8	0	56,580	8	0	56,580	8	0	.....		
	I.—Timber and other produce removed from the Forests by Government Agency—															
	a. Timber	.....			26,129	8	6	26,129	8	6	26,129	8	6	.....		
	b. Firewood and charcoal	.....			1,811	11	11	1,811	11	11	1,796	4	0	15	7	11
	c. Bamboos	.....			.....			.....			.....			.....		
	d. Sandalwood	.....			0	8	6	0	8	6	0	8	6	.....		
	e. Grass and other minor produce ...	.....			.....			.....			.....			.....		
Poona	*II.—Timber and other produce removed from the Forests by Consumers or Purchasers—*															
	a. Timber	.....			234	11	3	234	11	3	234	11	3	.....		
	b. Firewood and charcoal	.....			8,577	4	1	8,577	4	1	8,315	0	1	262	4	0
	c. Bamboos	.....			1,540	4	7	1,540	4	7	1,540	4	7	.....		
	d. Grazing and fodder grass ...	61	0	0	47,312	0	6	47,373	0	6	47,373	0	6	.....		
	e. Other minor produce	.....			7,423	9	0	7,423	9	0	7,413	9	0	10	0	0
	III.—Drift and Waif wood and Confiscated forest produce	.....			260	2	7	260	2	7	260	2	7	.....		
	Total ...	61	0	0	93,289	12	11	93,350	12	11	93,063	1	0	287	11	11
	I.—Timber and other produce removed from the Forests by Government Agency—															
	a. Timber	.....			13,618	0	9	13,618	0	9	13,618	0	9	.....		
	b. Firewood and charcoal	.....			4,229	9	9	4,229	9	9	4,229	9	9	.....		
	c. Bamboos	.....			.....			.....			.....			.....		
	d. Sandalwood	.....			.....			.....			.....			.....		
	e. Grass and other minor produce ...	.....			19,409	9	2	19,409	9	2	19,409	9	2	.....		
Sátára	*II.—Timber and other produce removed from the Forests by Consumers or Purchasers—*															
	a. Timber	.....			801	0	6	801	0	6	801	0	6	.....		
	b. Firewood and charcoal	.....			467	8	7	467	8	7	467	8	7	.....		
	c. Bamboos	.....			329	1	9	329	1	9	329	1	9	.....		
	d. Grazing and fodder grass ...	44	13	0	44,738	8	3	44,783	5	3	44,783	5	3	.....		
	e. Other minor produce	.....			3,339	10	6	3,339	10	6	3,339	10	6	.....		
	III.—Drift and Waif wood and Confiscated forest produce	.....			103	2	1	103	2	1	103	2	1	.....		
	Total ...	44	13	0	87,036	3	4	87,081	0	4	87,081	0	4	.....		

FORM No. 60—*concluded.*

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Sholápur ...	*I.—Timber and other produce removed from the Forests by Government Agency—*	.....	.....	.....	.....	.....	
	a. Timber	.....	90 7 3	90 7 3	90 7 3	.....	
	b. Firewood and charcoal	.....	1,293 6 3	1,293 6 3	1,293 6 3	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood...	.....	17 9 0	17 9 0	17 9 0	.....	
	e. Grass and other minor produce ...	0 10 0	15 11 0	16 5 0	16 5 0	.....	
	II.—Timber and other produce removed from the Forests by Consumers or Purchasers—	.....	.....	.....	.....	.....	
	a. Timber	.....	175 11 9	175 11 9	175 11 9	.....	
	b. Firewood and charcoal	.....	4,337 10 0	4,337 10 0	4,337 10 0	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Grazing and fodder grass ...	70 0 0	23,689 13 5	23,759 13 5	23,689 13 5	70 0 0	
	e. Other minor produce	.....	541 3 3	541 3 3	541 3 3	.....	
	III.—Drift and Waif wood and Confiscated forest produce	.....	29 2 3	29 2 3	29 2 3	.....	
	Total ...	70 10 0	30,190 10 2	30,261 4 2	30,191 4 2	70 0 0	
Surat	*I.—Timber and other produce removed from the Forests by Government Agency—*	.....	.....	.....	.....	.....	
	a. Timber	.....	48,136 1 1	48,136 1 1	48,136 1 1	.....	
	b. Firewood and charcoal	.....	500 8 0	500 8 0	500 8 0	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood...	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ...	.....	.....	.....	.....	.....	
	II.—Timber and other produce removed from the Forests by Consumers or Purchasers—	.....	.....	.....	.....	.....	
	a. Timber	.....	38,619 8 5	38,619 8 5	33,319 8 5	5,300 0 0	
	b. Firewood and charcoal	.....	786 12 0	786 12 0	786 12 0	.....	
	c. Bamboos	.....	16,306 4 7	16,306 4 7	16,306 4 7	.....	
	d. Grazing and fodder grass ...	.....	995 15 0	995 15 0	995 15 0	.....	
	e. Other minor produce	.....	2,224 15 6	2,224 15 6	2,224 15 6	.....	
	III.—Drift and Waif wood and Confiscated forest produce	.....	505 7 1	505 7 1	505 7 1	.....	
	Total ...	.....	1,08,075 7 8	1,08,075 7 8	1,02,775 7 8	5,300 0 0	

Panch Mahals...	*I.—Timber and other produce removed from the Forests by Government Agency—*											
	a. Timber	.....		4,197	3	0	4,197	3	0	4,19	3	0	.....	
	b. Firewood and charcoal	.....		3,718	5	0	3,718	5	0	3,718	5	0	.....	
	c. Bamboos	.....		1	8	0	1	8	0	1	8	0	.....	
	d. Sandalwood	.....		.....			.....			.....			.....	
	e. Grass and other minor produce ...	.....		.....			.....			.....			.....	
	II.—Timber and other produce removed from the Forests by Consumers or Purchasers—													
	a. Timber	.....		55,230	5	2	55,230	5	2	55,230	5	2	.....	
	b. Firewood and charcoal	.....		2,294	7	0	2,294	7	0	2,294	7	0	.....	
	c. Bamboos	.....		1,660	10	6	1,660	10	6	1,660	10	6	.....	
	d. Grazing and fodder grass ...	.....		6,605	11	0	6,605	11	0	6,605	11	0	.....	
	e. Other minor produce	.....		1,942	2	0	1,942	2	0	1,942	2	0	.....	
	III.—Drift and Waif wood and Confiscated forest produce	.....		172	10	9	172	10	9	172	10	9	.....	
	Total ...	.....		75,822	14	5	75,822	14	5	75,822	14	5	.....	
Total, Northern Circle.	*I.—Timber and other produce removed from the Forests by Government Agency—*													
	a. Timber	348	14	0	1,74,875	5	2	1,75,224	3	2	1,67,391	1	2	7,833	2	0
	b. Firewood and charcoal	.....			41,764	11	8	41,764	11	8	41,749	3	9	15	7	11
	c. Bamboos	.....			59	8	0	59	8	0	59	8	0	.....		
	d. Sandalwood	.....			21	12	6	21	12	6	21	12	6	.....		
	e. Grass and other minor produce ...	0	10	0	28,424	10	2	28,425	4	2	28,425	4	2	.....		
	II.—Timber and other produce removed from the Forests by Consumers or Purchasers—															
	a. Timber	375	9	0	4,94,570	4	4	4,94,945	13	4	4,83,366	7	4	11,579	6	0
	b. Firewood and charcoal	155	0	0	42,434	7	0	42,589	7	0	42,327	3	0	262	4	0
	c. Bamboos	.....			50,305	15	7	50,305	15	7	50,305	15	7	.....		
	d. Grazing and fodder grass ...	179	9	0	4,36,290	0	2	4,36,469	9	2	4,35,922	9	2	547	0	0
	e. Other minor produce	300	0	0	37,953	13	2	38,253	13	2	37,848	10	5	405	2	9
	III.—Drift and Waif wood and Confiscated forest produce	.....			3,814	7	9	3,814	7	9	3,814	7	9	.....		
	Grand Total ...	1,359	10	0	13,10,514	15	6	13,11,874	9	6	12,91,232	2	10	20,642	6	8

NOTE.—The revenue under Budget heads IV and V is Rs. 26,790-9-1 and Rs. 44,404-15-0, respectively. This has not been shown in this statement in detail, as there are no outstandings against these heads. The total amount realised during the year is Rs. 13,62,427-10-11 (*vide* Form No. 58).

Poona, 31st October 1892.

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

FORM No. 61.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Outstandings and Liabilities on account of Contractors and Disbursers for the year 1891-92.

Division.	Department Debtor.			Department Creditor.			Balance due.		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during year.	At close of year.	At commencement of year.	Payments made during the year.	At close of year.	To Department (Outstandings).	By Department (Liabilities).	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Contractors...	Nil.	.....	.....	.....	.....	.....	.....	...	
Total ...	Nil.	.....	.....	.....	.....	.....	.....	...	
DISBURSERS.									
North Thána	...	48,320 4 10	48,320 4 10	.....	48,320 4 10	48,320 4 10	.....	...	
South do.	...	46,850 13 0	46,850 13 0	160 3 6	46,861 5 0	47,021 8 6	170 11 6	...	
East Khándesh	...	33,235 5 6	33,235 5 6	11 8 0	33,224 4 5	33,235 12 5	0 6 11	...	
West do.	...	57,386 13 3	57,386 13 3	141 3 2	57,745 10 2	57,886 13 4	500 0 1	...	
Násik	...	47,793 13 2	47,793 13 2	400 1 11	48,096 5 0	48,496 6 11	702 9 9	...	
Ahmednagar	...	35,973 7 9	35,973 7 9	174 6 8	35,799 1 1	35,973 7 9	.....	...	
Poona	...	53,312 9 3	53,312 9 3	3 0 0	53,309 9 3	53,312 9 3	.....	...	
Sátára	...	45,031 1 5	45,031 1 5	38 10 9	45,042 6 8	45,081 1 5	50 0 0	...	
Sholápur	...	15,935 15 3	15,935 15 3	84 9 0	15,851 6 3	15,935 15 3	.....	...	
Surat	...	31,375 6 8	31,375 6 8	50 0 0	32,669 15 3	32,719 15 3	1,344 8 7	...	
Panch Mahals	...	16,145 0 0	16,145 0 0	.....	16,145 0 0	16,145 0 0	.....	...	
Working Plans	...	2,035 2 0	2,035 2 0	.....	2,035 2 0	2,035 2 0	.....	...	
Bombay Forest Surveys ...	...	3,625 12 3	3,625 12 3	2,437 14 1	4,020 1 3	6,457 15 4	2,832 3 1	...	
Total, Disbursers ..	...	4,37,021 8 4	4,37,021 8 4	3,501 9 1	4,39,120 7 2	4,42,622 0 3	5,600 7 11	...	
Grand Total ...	...	4,37,021 8 4	4,37,021 8 4	3,501 9 1	4,39,120 7 2	4,42,622 0 3	5,600 7 11	...	

No. $\frac{F}{12544}$.

Forwarded to the Conservator of Forests, Northern Circle, under Section 238 of the Forest Department Code.

Accountant General's Office,
Bombay, 3rd August 1892.

GODREZJI D. PUDUMJI,
for Accountant General.

ANNUAL FORM No. 62.

Forest Department, Bombay, Northern Circle.

Financial Results of the year 1891-92.

Division.	Timber and other Produce removed from the Forests by Government Agency.		Other Revenue.		Formation, Protection and Improvement of Forests.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
North Thána	4,383	5,875	3,01,051	8,798	67,847	3,05,434	82,520	
South Thána	6,608	3,724	1,20,833	5,656	73,904	1,27,441	83,284	
East Khándesh	24,678	5,359	1,26,133	7,296	49,804	1,50,811	62,459	
West Khándesh	60,059	7,443	1,42,884	7,055	51,756	2,02,943	66,254	
Násik	6,932	2,358	1,15,582	4,044	67,436	1,22,514	73,838	
Ahmednagar	11,832	2,604	45,578	2,384	48,747	57,410	53,735	
Poona	27,926	5,487	67,263	3,145	94,391	95,189	1,03,023	
Sátára	37,257	10,739	51,385	3,900	53,776	88,642	68,415	
Sholápur	1,418	622	29,223	1,130	31,399	30,641	33,151	
Surat	48,637	22,172	55,663	10,126	27,173	1,04,300	59,471	
Panch Maháls	7,917	1,955	69,186	1,843	27,446	77,103	31,244	
Total ...	2,37,647	68,338	11,24,781	55,377	5,93,679	13,62,428	7,17,394	

Poona, 31st October-1892.

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

No. 104 of 1893.

REVENUE DEPARTMENT.
Ahmedabad, 11th January 1893.

In forwarding the report of the Conservator of Forests, N. C. (old), for 1891-92, the undersigned feels that as he has only just taken charge of this Division and has had no previous experience of forest work in the Northern Division, it is useless for him to make any lengthened remarks.

2. The exclusion of Karjat from the Northern Division has made a considerable difference in the forest area; except this the only important change in the area is the addition of over 37 square miles in the Vádá range in the Northern Thána Division.

3. Paragraph 25 shows that there is still much settlement work to be done in both North and South Thána.

4. Paragraph 26 shows the work that was done in the Dáhánu Táluka, and it will be seen that the Collector, though he considers that the amount of work was not what had been hoped, is of opinion that this is excused by the unhealthiness of the season.

5. The work in Surat proper and the Panch Mahals was too small to call for any remark.

6. *Paragraphs 49 and 50.*—It is interesting to read the remarks of the Conservator on the fact that the villagers have not availed themselves of the privilege of taking ráb from coupes that were being cut during the season. It cannot be that all the coupes of the year were in inaccessible spots, and so far as it goes this fact seems to show that the villagers do not experience any great difficulty in getting ráb from sources ordinarily open to them.

7. *Surveys.*—A fair amount of work was done in North and South Thána. It is difficult for any one but an expert to give an opinion on the mileage rates of the 8-inch survey, though the explanation that the 16-inch survey was only of the Deccan bábul reserves explains the apparent cheapness of the larger scale.

8. *Working Plans.*—Principally concerned with the two divisions of Thána. It is as yet too early to give any opinion about the practical effect of this, but Mr. Fry appears to have done good work.

9. Special attention has been attracted during the past year to punishments for breaches of the forest law, and to cases of compounding under Section 67 of the Act.

10. It is satisfactory to find that for the four districts in the Northern Division the record is so good. Considering the extent of country under forest the number of criminal prosecutions is by no means excessive, and two out of the three cases given in paragraph 89 show that serious cases do occur.

11. It is also clear that there has been no abuse of the power of compounding, and that in this Division by far the largest number of cases dealt with, 342 out of 502, were for misappropriation of timber, and paragraph 105 shows that no rewards at all were given under Government Resolution No. 8568 of 16th December 1887.

12.—It is curious to note in paragraph 107 that in only two districts, Násik and Nagar, did the Divisional Forest Officers let off any of the cases in which the offender had agreed to compound.

13. The number of cattle impounded in this Division is by no means large.

14. *Forest Fires.*—The undersigned has just forwarded to Government, No. 82 of 9th January, a letter from the Collector of Thána, detailing the system which he has introduced. It is well calculated to ensure the purpose for which it is designed. The attention of the Collector, Panch Mahals, should be directed to the large number of forest fires in that district.

15. The results of the grazing rules require no special remarks, except that they show a distinct falling off in South Thána, while in North Thána larger revenue has been derived for sale of grass from a smaller area.

16. The small amounts expended in the Northern Division on artificial reproduction have been well spent.

17. The Dáhánu-Jawhár and the Váda-Shirghát roads are both likely to open much good forest country, and at the same time to connect the Násik district with the coast and the B. B. & C. I. Railway.

18. *Paragraphs 202, 203 and 220.*—It is curious to see the very small demand for the material felled in the coupes which remained unsold but were felled in accordance with the orders in Government Resolution No. 650 of 26th January 1891.

19. The general financial results of the year show a very marked increase though for the special reasons shown in paragraphs 239 and 244 there is a large decrease in South Thána, and also in Surat.

20. This is the last year that Mr. Shuttleworth will submit a report for Gujarát and Thána. As usual he has worked most zealously, and his relations with the district officers and the Commissioner have been most cordial. Very few officers could for so many years have continued the close personal supervision that he has given to the very large and scattered area comprised within the old Northern Circle, and his successor in the Northern Circle will find that his work has been made comparatively easy to him.

21. Mr. Shuttleworth has been ably aided by his subordinates, and it is most satisfactory to read the testimonies given by Mr. Sinclair to Messrs. Millet and Osmaston, and also the good reports on Messrs. Madan and Keys.

G. B. REID,
Commissioner, N. D.

No. $\frac{R}{479}$ of 1893.

REVENUE DEPARTMENT.

Camp Yeola, Násik District, 1st February 1893.

Submitted to Government with the following remarks.

Changes in area.

2. The addition to the area of Reserved Forest in the Central Division amounted to 105 square miles and 113 acres; the largest increase being in the Násik District, and the smallest in East Khándesh. The decrease on account of disforestment in the same class amounted to 8 square miles and 162 acres. And so the net accession to Reserved Forest was 96 square miles and 591 acres. In the area of Protected Forest there was no increase; but a decrease which amounted to 24 square miles and 234 acres.

Demarcation work.

3. Except in four tálukas of the Khándesh District, the regular demarcation work in the Central Division has been completed, and all that remains to be done is the acquisition of occupied lands where such are included in the demarcation schemes; considerable progress appears to have been made in this respect in almost all the districts, but more especially in East Khándesh and Poona. As regards the four tálukas in the Western Division of Khándesh, in which the demarcation work is yet to be completed, Mr. Dodgson has made very creditable progress, in spite of the fact that he was temporarily called away from his work in order to relieve Mr. Loch. And his proposals for the settlement of the southern part of the Pimpalner Táluka have been submitted to Government within the last fortnight.

Boundary marks.

4. The progress made in the erection of boundary marks was satisfactory, especially in the districts of Násik and Poona.

Forest survey.

5. The survey party has performed a good year's work; and the difference between the cost of the 8-inch scale work and the 16-inch scale work is satisfactorily accounted for. The attention of the working-plans staff was chiefly directed to the Thána District, nothing appreciable being done in the Central Division, except the progress made as regards bábul blocks in Poona.

Prosecutions.

6. As in the previous year, the largest number of prosecutions appears against the Poona District, although the actual number has been reduced by nearly 50 per cent. The number of prosecutions has also decreased in the Eastern and Western Divisions of Khándesh; while in Násik, Ahmednagar, Sátára and Sholápur, it shows a considerable increase. Comparing the figures for East and West Khándesh with those for Násik and Ahmednagar, it is curious to find that a decrease in the number of prosecutions is, in the former case, accompanied by an increase in the percentage of failures, and that an increase in the number of prosecutions is, in the latter case, accompanied by a decrease in the percentage of failures. The failures in East and West Khándesh are chiefly attributed to "a tendency in Magistrates to look to the [criminal] intent in all cases"; and it is stated that the District Magistrate intends to issue a circular on the subject to the Subordinate Magistrates. But a preferable course to adopt would seem to be to select a typical case in which the deciding Magistrate has apparently erred in the interpretation or application of the law, and obtain a definite ruling of the High Court; for, a circular issued by the District Magistrate cannot have the force of a High Court ruling; and there is the additional danger that it is apt to be taken in the light of an executive mandate, and, as such, is likely to create an undesirable tendency to go too far in the direction in which it leads.

Cases compounded under Section 67 of the Forest Act.

7. The number of cases compounded under Section 67 of the Forest Act shows a considerable increase in every district in the Central Division, but more especially in Sátára, where the number has risen from 147 in the previous year to 923 in the year of report; the abnormal increase here, however, is more

or less explained by the fact that the present Divisional Forest Officer disposed, during the year, of a good many cases left undisposed of by his predecessor (see paragraph 114 of the report). The number of cases taken into Court shows decreases of about 50 per cent. in Khándesh and Poona, but large increases in the other districts, and especially in Sholápur.

8. The table embodied in paragraph 106 of the report shows that in all the forest divisions, except Násik, compensation was accepted under Section 67 in *all* the cases that were sent up to the Divisional Forest Officer (see figures in columns 3 and 4 of the table). The remark that "in Ahmednagar the Divisional Forest Officer let off many cases wherein the village panch had assessed the damages at below 4 annas" is, therefore, not clearly understood. If there were such cases, they ought to have been shown in column 3; and in that case the figures in columns 3 and 4 would not be identical. Probably the number of such cases let off has not been definitely ascertained, and they have, therefore, been left outside the account.

9. The largest amount of compensation accepted under Section 67 was Rs. 50, and the smallest was one rupee. More than 50 per cent. of the total number of cases in which compensation was accepted fall under the one-rupee category.

10. The suggestion of the District Magistrate of Ahmednagar that "all Magistrates should be appointed Forest Officers for the purpose of carrying out the provisions of Section 67" (referred to in paragraph 116 of the report) does not commend itself to the undersigned. Very heavy additional work would be thrown on the magistracy. And also, the Magistrate who should fail to effect a settlement under Section 67 ought not to be left to try the offender when prosecuted; and the result would be frequent transfers of cases, and consequent delay and worry to all parties concerned.

Cattle impounded.

11. The number of cattle impounded for trespassing into closed areas has slightly decreased, but the number of those impounded for grazing without passes in open areas shows an increase of 36,820 over the previous year's figure. The largest number was impounded in the Ahmednagar District; and the explanation suggested in paragraph 122 of the report, that the pound fees are too light to have a deterrent effect, can hardly be accepted as satisfactory. It is stated in the same paragraph that "proposals to raise the fines in respect of cattle trespassing in the forests of the villages that have been most to blame have already been submitted to Government"; but the fact is that the proposals did not commend themselves to Mr. Reid, who informed the Collector that he did not consider it advisable to submit them to Government.

Fire protection.

12. The division in which forest fires are most rife appears to be the Western Division of Khándesh; and the figures show that a larger area was burnt this year than in the previous year: the Collector observes on this point (see paragraph 130) that "privilege-holders are no doubt to blame for most of the fires in the Sátpuras." The testimony borne by the Conservator of Forests (see paragraph 128) to the co-operation of villagers in East Khándesh in the matter of fire-protection, is satisfactory.

Grass and grazing.

13. In paragraph 138 of the report the Conservator has given the receipts from grass and grazing during the last fourteen years; and the figures show how steadily the revenue from this source has expanded from Rs. 42,629 in 1878-79 to Rs. 4,35,923 in 1891-92. Compared with the previous year, the receipts for 1891-92 show an increase of Rs. 73,940, which, with the exception of the period 1887-88 to 1888-89, very much exceeds the increase in the case of any previous year. This increase appears to be chiefly due to the working of the new grazing rules, which Mr. Shuttleworth observes (paragraph 157) "have worked very fairly, for they do not exact heavy fees."

Communications.

14. Fair progress seems to have been made in opening out the forests along the Sahyádri range in the districts of Khándesh, Násik, Ahmednagar and Poona. As regards the Sátára District, the Conservator states (paragraph 73 of the report) that

Mr. Fry has inspected the Warna and Koyna valleys, and considers it doubtful whether any considerable expenditure in opening out these tracts would be justifiable.

Departmental operations.

15. The receipts on account of departmental fellings in the various forest divisions of the Central Division amounted, during the year under report, to Rs. 1,10,351 on account of timber, Rs. 37,113 on account of firewood, and Rs. 30,021-6-3 on account of minor produce, as against Rs. 97,061 on account of timber, Rs. 27,187 on account of firewood, and Rs. 24,027-8-0 on account of minor produce, in the previous year,—thus showing an increase under each of the three heads. There are no abnormal variations in the receipts for the several divisions, and such differences as are apparent are satisfactorily accounted for.

Free grants of wood.

16. The value of the timber of which free grants were made by Revenue Officers in the Central Division during the year under report, was Rs. 1,949, against Rs. 1,587 in the previous year. The entry "Rs." has been inadvertently omitted in columns 3 to 6 of the table embodied in paragraph 229 of the report.

Financial position.

17. The progress in financial results of the forest administration of the Northern Circle will be apparent from the following comparative statement :—

Year.	Receipts.	Expenditure.	Net Revenue.
	Rs.	Rs.	Rs.
1887-88	9,68,625 3 5	7,23,135 7 10	2,45,489 11 7
1888-89	11,60,768 8 5	7,27,412 3 9	4,33,356 4 8
1889-90	11,85,540 5 4	7,05,357 3 1	4,80,183 2 3
1890-91	12,57,501 15 3	7,35,704 10 3	5,21,797 5 0
1891-92	13,62,427 10 11	7,17,394 0 7	6,45,033 10 4

The gross receipts have steadily increased from year to year; and the increase is more perceptible in the case of the net receipts, for the obvious reason that expenditure has not expanded *pari passu* with receipts.

Concluding remarks.

18. The report testifies throughout to the thorough manner in which Mr. Shuttleworth has identified himself with the interests of the department of which he holds the charge. And it is gratifying to be able to observe that the Revenue and Forest Officers in the Circle have worked together with complete cordiality.

J. F. FLEET,

Acting Commissioner, C. D.

No. 1007 OF 1893-94.

FROM

A. T. SHUTTLEWORTH, ESQUIRE,
Conservator of Forests, C. C. ;

To

G. W. VIDAL, ESQUIRE,
Chief Secretary to Government,
Revenue Department, Bombay.

Office Camp Poona,
Dated 23rd May 1893.

SIR,

I have the honour to report that in the month of March last I received from the Accountant General, Bombay, a supplementary summary of revenue and expenditure, including journal entries, for the year 1891-92, which contains certain corrections in the figures of receipts and expenditure already furnished by him for my Administration Report. I therefore request that Government will kindly cause corrections to be made in the figures of receipts and expenditure of my printed Administration Report for 1891-92, as noted below.

The classifications of cases prosecuted and of cases compounded, exhibited in paragraphs 101 and 103 of my printed report, likewise require to be corrected, as it has been ascertained subsequent to the submission of the printed report, that some Divisional Forest Officers had sorted their cases incorrectly ; I would therefore ask—

(*a*) that the statement Appendix A of this letter may be substituted for the statement embodied in paragraph 101 of the report ;

(*b*) that the statement Appendix B of this letter may be substituted for statement embodied in paragraph 103 ;

(*c*) in paragraph 228, "2,267" may be substituted for "2,266" against South Thána in the statement, and the total "37,850" for "37,849" in the column "Amounts, 1891-92 ;"

(*d*) that the statement Appendix C of this letter may be substituted for the statement embodied in paragraph 236 ;

(*e*) in paragraph 237 in the fourth line for Rs. "6,45,033," Rs. "6,44,239" be substituted ;

(*f*) in paragraph 238 the following figures against the divisions of North Thána, South Thána and Surat be substituted for the existing ones :—

	1891-92.			Decrease.		
	Rs.	a.	p.	Rs.	a.	p.
North Thána	3,05,432	14	11	40	7	4
South Thána	1,27,440	3	9	26,275	14	11
Surat	1,04,599	4	4	6,820	10	8

and against "Total" in the columns "1891-92" and "Decrease" the figures Rs. 13,62,731-12-7 and Rs. 37,145-15-0 respectively ;

(*g*) in paragraph 239 in the second line Rs. 26,276 be substituted for Rs. 26,277 ;

(*h*) in paragraph 247 in the second line for Rs. 2,32,321 and Rs. 15,536, Rs. 2,33,420 and Rs. 14,437 be substituted respectively ;

(*i*) the statement Appendix D of this letter be substituted for the statement embodied in paragraph 247 ;

(*j*) in the first line of paragraph 249, Rs. 7,514 be substituted for Rs. 7,490; in the fifth line Rs. 8,854 for Rs. 9,451; in the first line of paragraph 251, Rs. 5,376 for Rs. 5327; in the 2nd line of paragraph 252, Rs. 923 and 6,949 for Rs. 939 and Rs. 7,266 respectively; in the first line of paragraph 253, Rs. 1,167 for Rs. 1,071; in the second line of paragraph 255, Rs. 13,62,731-12-7 for Rs. 13,62,427-10-11; in the third line Rs. 7,18,493-0-7 for Rs. 7,17,394-0-7, and in the fourth line Rs. 6,44,238-12-0 for Rs. 6,45,033 10-4; in the statement embodied in paragraph 102 against Poona 2,063 for 2,061 and 2,304 for 2,302, and totals 12,327 for 12,325 and 13,589 for 13,587; in the statement in paragraph 107 against Poona in column "Number of cases disposed of, &c." 2,063 for 2,061 and total 12,327 for 12,325; and in statement in paragraph 109 against Poona in column "1891-92" 2,063 for 2,061 and total 12,327 for 12,325;

(*k*) a revised form No. 50 is forwarded herewith marked Appendix E;

(*l*) form Appendix F should be substituted for Form No. 58, and form Appendix G for Form No. 59 of the report.

I have the honour to be,
Sir,
Your most obedient Servant,
A. T. SHUTTLEWORTH,
Conservator of Forests, C. C.

Through the Commissioner, C. D.

No. R.—2308 OF 1893.

REVENUE DEPARTMENT,
Poona, 6th June 1893.

Forwarded

J. F. FLEET,
Commissioner in charge C. D.

APPENDIX A.

No.	Division.	Offences relating to the misappropriation of				Total.
		(a) Timber.	(b) Firewood.	(c) Minor Forest produce.	(d) Other offences.	
1	North Thána	37	8	6	107	158
2	South Thána	88	...	7	18	113
3	East Khándesh	9	11	14	10	44
4	West Khándesh	8	3	32	33	76
5	Násik	40	....	...	78	118
6	Ahmednagar	15	9	2	140	166
7	Poona	21	39	10	171	241
8	Sátára	27	12	2	64	105
9	Sholápur	...	6	1	169	176
10	Surat	3	...	...	...	3
11	Panch Mahals	53	7	...	2	62
	Total ...	301	95	74	792	1,262

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

APPENDIX B.

No.	Division.	Offences relating to the misappropriation of				Total.
		(a) Timber.	(b) Firewood.	(c) Minor Forest produce.	(d) Other offences.	
1	North Thána	41	24	21	10	96
2	South Thána	200	...	11	43	254
3	East Khándesh	2	217	...	1,351	1,570
4	West Khándesh	114	184	98	852	1,248
5	Násik	561	...	9	902	1,472
6	Ahmednagar	14	205	1	2,721	2,941
7	Poona	79	323	10	1,651	2,063
8	Sátára	103	273	40	507	923
9	Sholápur	4	12	1	1,591	1,608
10	Surat	...	5	...	12	17
11	Panch Mahals	92	11	24	8	135
	Total ...	1,210	1,254	215	9,648	12,327

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

APPENDIX C.

Year.	Receipts.	Expenditure.			Net Revenue.
		A.—Conservancy and Works.	B.—Establishments.	Total.	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1890-91	12,57,501 15 3	2,47,857 10 7	4,87,846 15 8	7,35,704 10 3	5,21,797 5 0
1891-92	13,62,731 12 7	2,33,420 2 4	4,85,072 14 3	7,18,493 0 7	6,44,238 12 0
Increase ...	1,05,229 13 4	.....	.....	.....	1,22,441 7 0
Decrease ...	.....	14,437 8 3	2,774 1 5	17,211 9 8	.....

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

APPENDIX D.

No.	Division.	1890-91.	1891-92.	Increase.	Decrease.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1	Direction	.....	567 4 0	567 4 0	.....
2	North Thána	14,938 7 7	22,452 10 5	7,514 2 10	.....
3	South Thána	37,983 0 11	29,128 2 11	.....	8,854 14 0
4	East Khándesh	11,487 8 8	16,578 3 5	5,090 10 9	.....
5	West Khándesh	22,919 8 11	22,997 8 4	77 15 5	.....
6	Násik	10,618 9 6	15,995 8 5	5,376 14 11	.....
7	Ahmednagar	14,254 7 8	13,330 9 6	.....	923 14 2
8	Poona	44,851 1 11	37,901 5 0	.....	6,949 12 11
9	Sátára	16,658 15 10	18,275 11 1	1,616 11 3	.....
10	Sholápur	5,638 13 11	6,806 11 4	1,167 13 5	.....
11	Surat	48,295 9 2	37,931 6 3	.....	10,364 2 11
12	Panch Maháls	3,591 15 10	4,507 15 2	915 15 4	.....
13	Working Plans	16,619 6 8	6,947 2 6	.....	9,672 4 2
	Total ...	2,47,857 10 7	2,33,420 2 4	22,327 7 11	36,765 0 2

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

APPENDIX E.

ANNUAL FORM No. 50.—[*Prescribed.*]

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Register of Breaches of Forest Rules during 1891-92.

Forest Division.		Cases pending from 1890-91.	New Cases of the Year.					Total cases.	Disposed of during the Year.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
North Thána ...	A	9	2	74	4	78	158	167	140	226	18	33	158	259	9
	B	...	...	96	...	...	96	96	96	212	...	...	96	212	...
	C	...	...	224	...	...	224	...	...	...	...	...	...	...	...
	Total ...	9	2	394	4	78	478	263	236	438	18	33	254	471	9
South Thána ...	A	7	6	98	3	16	123	130	83	245	30	66	113	311	17
	B	...	...	254	...	...	254	254	254	362	...	...	254	362	...
	C	...	...	295	...	...	295	...	...	...	...	...	...	...	...
	Total ...	7	6	647	3	16	672	384	337	607	30	66	367	673	17
East Khándesh...	A	4	9	11	19	10	49	53	36	82	8	12	44	94	9
	B	...	9	217	653	691	1,570	1,570	1,570	4,290	...	...	1,570	4,290	...
	C	...	2	4	4	7	17	...	...	...	...	...	...	...	...
	Total ...	4	20	232	676	708	1,636	1,623	1,606	4,372	8	12	1,614	4,384	9
West Khándesh	A	9	20	10	9	33	72	81	58	135	18	46	76	181	5
	B	...	11	326	725	186	1,248	1,248	1,248	3,833	...	...	1,248	3,833	...
	C	...	135	74	13	3	225	...	...	...	...	...	...	...	...
	Total ...	9	166	410	747	222	1,545	1,329	1,306	3,968	18	46	1,324	4,014	5
Násik	A	20	4	31	54	27	116	136	100	290	18	42	118	332	18
	B	214	94	545	691	93	1,423	1,637	1,213	2,788	510	588	1,472	3,376	165
	C	...	70	139	25	11	245	...	...	...	...	...	...	...	...
	Total ...	234	168	715	770	131	1,784	1,773	1,313	3,078	528	630	1,590	3,708	183

Ahmednagar ...	A	...	...	1	26	112	41	180	180	130	327	36	138	166	465	14
	B	...	534	...	220	2,727	29	2,976	3,510	2,941	7,969	...	...	2,941	7,969	569
	C	...	...	7	97	58	7	169	...	...	...	...	...	...	...	...
	Total	...	534	8	343	2,897	77	3,325	3,690	3,071	8,296	36	138	3,107	8,434	583
Poona	A	...	3	1	61	133	52	247	250	183	491	58	224	241	715	9
	B	...	...	18	429	1,589	27	2,063	2,063	2,061	4,721	2	...	2,063	4,721	...
	C	...	...	29	42	7	...	78	...	...	...	...	...	...	...	...
	Total	...	3	48	532	1,729	79	2,388	2,313	2,244	5,212	60	224	2,304	5,436	9
Sátára	A	...	4	4	38	52	24	118	122	78	290	27	113	105	403	17
	B	...	14	6	460	607	100	1,173	1,187	923	2,299	...	...	923	2,299	264
	C	...	...	8	109	41	6	164	...	...	...	...	...	...	...	...
	Total	...	18	18	607	700	130	1,455	1,309	1,001	2,589	27	113	1,028	2,702	281
Sholápur ...	A	...	5	...	4	161	19	184	189	121	290	55	202	176	492	13
	B	...	454	...	...	1,582	...	1,582	2,036	1,608	4,703	...	...	1,608	4,703	428
	C	...	...	2	6	...	...	8	...	...	...	...	...	...	...	...
	Total	...	459	2	10	1,743	19	1,774	2,225	1,729	4,993	55	202	1,784	5,195	441
Surat	A	...	...	...	3	...	...	3	3	2	3	1	1	3	4	...
	B	...	...	...	15	2	...	17	17	17	29	...	...	17	29	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total	...	...	...	18	2	...	20	20	19	32	1	1	20	33	...
Panch Mahals ...	A	...	...	...	62	...	2	64	64	57	110	5	12	62	122	2
	B	...	...	...	131	2	2	135	135	132	169	3	3	135	172	...
	C	...	...	...	68	...	...	68	...	...	...	...	...	...	...	...
	Total	...	...	...	261	2	4	267	199	189	279	8	15	197	294	2
Grand Total ...	A	...	61	47	418	547	302	1,314	1,375	988	2,489	274	889	1,262	3,378	113
	B	...	1,216	138	2,693	8,578	1,128	12,537	13,753	11,812	31,375	515	591	12,327	31,966	1,426
	C	...	...	253	1,058	148	34	1,493	...	...	...	...	...	...	...	...

N.B.—A means cases taken into Court. B means cases disposed of under Section 67 of the Indian Forest Act, 1878. C means undetected cases.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

APPENDIX

FOREST DEPARTMENT,

Supplementary Annual Summary of Revenue and Expenditure of the different

Budget Heads.	Direction.	North Thána Division.	South Thána Division.	East Khándesh Division.	West Khándesh Division.	Ahmednagar Division.
REVENUE.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I. Timber and other produce removed from the Forests by Government Agency—						
a. Timber ...	.....	2,174 11 6	2,531 8 9	10,448 7 9	48,935 4 5	7,077 0 0
b. Firewood and charcoal	.....	415 7 9	1 11 6	14,299 9 0	11,014 6 0	755 5 0
c. Bamboos	.....	.....	.....	.....	58 0 0	.....
d. Sandalwood	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	1,792 3 3	4,075 6 9	.....	1 4 0	3,100 0 0
II. Timber and other produce removed from the Forests by Consumers or Purchasers—						
a. Timber ...	.....	2,50,307 0 9	90,413 6 0	4,354 4 0	8,883 12 0	158 4 0
b. Firewood and charcoal	.....	6,901 11 10	1,507 3 3	9,458 12 6	3,394 1 0	3,479 14 9
c. Bamboos	.....	10,663 0 7	7,489 0 6	4,673 11 1	2,600 2 6	341 12 3
d. Grazing and fodder grass	.....	13,754 8 6	4,938 2 9	65,032 10 1	1,01,863 4 3	39,289 11 4
e. Other minor produce	.....	4,901 15 6	(D) 2,267 9 11	1,208 4 0	8,096 15 6	1,389 10 6
III. Drift and Waif wood and confiscated Forest Produce	.....	494 1 6	804 7 4	396 6 6	823 7 9	103 14 2
IV. Revenue from Forests not managed by Government—						
a. Duty on foreign timber and other forest produce	.....	.....	.....	14,176 6 3	9,410 2 9	.....
b. Revenue from shared and private forests	.....	613 0 7	1,635 7 1	.....	.....	.....
V. Miscellaneous—						
a. Fines and forfeitures	.....	8,615 5 7	4,213 7 8	.....	.....	.....
b. Refunds ...	.....	108 15 4	1 10 6	0 4 0	50 7 2	0 4 0
c. Other sources ...	3 8 0	(D) 4,687 12 3	1,561 1 9	6,832 9 0	7,762 0 1	830 0 10
TOTAL REVENUE ...	3 8 0	3,05,432 14 11	1,27,440 3 9	1,50,811 4 2	2,02,943 3 5	57,410 12 10
EXPENDITURE.						
A.—CONSERVANCY AND WORKS.						
I. Timber and other produce removed from the Forests by Government Agency—						
a. Timber ...	.....	2,346 3 8	986 8 6	1,338 10 0	4,157 15 1	1,261 3 6
b. Firewood and charcoal	.....	633 5 0	0 4 0	2,999 2 0	1,835 10 1	.....
c. Bamboos	.....	.....	.....	.....	10 0 0	.....
d. Sandalwood	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	497 7 8	977 11 10	62 9 3	.....	851 8 9
II. Timber and other produce removed from the Forests by Consumers or Purchasers—	.....	6,363 1 4	3,856 10 0	6,304 15 3	5,615 5 9	1,890 3 6
III. Drift and Waif wood and confiscated Forest Produce—	.....	36 13 6	40 5 8	32 1 3	0 15 0	2 4 3
IV. Revenue from Forests not managed by Government—						
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	.....
b. Revenue from shared and private forests	.....	.....	.....	.....	.....	.....
V. Rent of leased Forests and payments to shareholders in Forests managed by Government—	.....	.....	639 14 0	.....	.....	23 0 10
VI. Live Stock Stores, Tools and Plant—						
a. Purchase of cattle ...	.....	.....	.....	.....	.....	.....
b. Feed and keep of cattle	.....	.....	.....	.....	.....	.....
c. Purchase of stores, tools and plant	541 0 0	103 11 10	83 1 4	.....	82 9 3	139 4 3
VII. Communications and Buildings—						
a. Roads and bridges	.....	.....	.....	.....	.....	49 14 0
b. Buildings	.....	747 9 0	2,315 8 0	154 0 0	883 5 0	1 6 6
c. Other works	.....	.....	22 8 0	.....	.....	37 11 0
VIII. Demarcation, Improvement, and extension of Forests—						
a. Demarcation	.....	4,898 8 3	248 12 11	227 4 3	7,896 6 1	2,020 3 0
b. Compensation for land and rights	.....	.....	12 0 0	4,797 15 1	381 0 0	688 5 4
c. Surveys and working plans ...	.....	(C) 905 10 2	15,945 9 5	80 15 9	378 6 6	(C) 889 13 4
d. Sowing and planting	.....	792 5 5	1,030 9 9	74 12 9	604 10 2	2,024 8 10
e. Protection from fire ...	.....	2,364 0 9	715 14 0	176 0 0	226 6 0	.....
f. Other works ...	.....	2,323 6 0	1,779 5 1	.....	.....	3,343 0 9
IX. Miscellaneous—						
a. Refunds ...	.....	.....	.....	.....	.....	.....
b. Law charges ...	.....	.....	45 1 10	.....	2 4 0	.....
c. Other charges ...	26 4 0	440 7 10	428 6 7	329 13 10	917 11 5	104 1 8
TOTAL A.—CONSERVANCY AND WORKS ...	567 4 0	22,452 10 5	29,128 2 11	16,578 3 5	22,997 8 4	13,330 9 6
B.—ESTABLISHMENTS.						
I. Salaries—						
a. Conservators ...	18,000 0 0	.....	.....	.....	.....	.....
b. Superior officers	1,100 0 0	9,036 10 8	7,880 10 3	10,800 0 0	6,005 0 0	6,911 6 4
c. Subordinate Forest and Depôt Establishments	.....	25,811 13 4	24,782 4 6	23,337 15 2	23,710 4 7	23,965 8 2
d. Office Establishments	6,672 6 4	3,123 10 8	3,202 13 4	2,113 9 7	2,551 4 8	2,131 4 9
e. Deputation and special allowances	483 0 0	120 0 0	.....	561 10 6	.....	.....
II. Travelling allowances—						
a. Conservators ...	2,400 0 0	.....	.....	.....	.....	.....
b. Superior officers	300 0 0	3,022 4 2	2,477 6 9	1,822 5 2	1,806 9 10	1,800 0 0
c. Subordinate Forest and Depôt Establishments	.....	988 10 5	1,086 3 8	1,640 15 4	1,389 9 3	1,660 4 1
d. Office Establishments	1,641 0 10	985 2 3	993 3 4	753 14 3	847 12 8	779 5 7
III. Contingencies—						
a. Stationery	23 6 0	389 0 8	339 2 10	372 0 7	350 12 1	390 3 0
b. Carriage of tents and records	456 5 6	406 12 3	336 1 6	131 13 6	261 13 6	157 13 0
c. Rents, rates and taxes	480 0 0	232 10 0	172 6 8	300 0 0	296 9 2	312 0 0
d. Pay of Police Guards	.....	.....	.....	.....	.....	.....
e. Official Postage	440 7 0	661 6 6	874 10 0	675 9 0	778 5 0	736 3 0
Sundries	2,170 8 1	236 4 11	308 6 3	492 12 7	941 0 10	146 10 9
Payments to Officers of other Provinces	1,240 11 3	.....	.....	.....	.....	.....
TOTAL B.—ESTABLISHMENTS ...	35,407 13 0	45,014 4 11	42,553 5 1	43,002 9 8	38,939 1 7	38,980 10 8
GRAND TOTAL OF EXPENDITURE ...	35,975 1 0	67,466 15 4	71,681 8 0	59,580 13 1	61,936 9 11	52,311 4 2

(D).—Add Revenue II *c* (South Thána) Rs. 1 11 8 / V *c* (North Thána) „ 2 6 0 } Amounts of revenue remitted to the Treasury but left unaccounted for by the Divisional Forest Officer, adjusted as per Treasury account by credit to Revenue and debit to Forest Remittances.

(C).—North Thána ... Rs. 24
South do. ... „ 597
Násik ... „ 49
Ahmednagar ... „ 16
Poona ... „ 317
Sholápur ... „ 96
} Rs. 1,099. Amount of percentage cost of mathematical instruments supplied to the Bombay Forest Survey Party and charged to Provincial Governments now adjusted by credit to India and debit to A. VIII *c* of these divisions.

Forest Department, Accountant General's Office.

F.

NORTHERN CIRCLE.

Divisions for 1891-92 including Journal Entries.

Násik Division.	Poona Division.	Sátára Division.	Sholápur Division.	Surat Division.	Panch Mahals Division.	Working Plans Division.	Total for 1891-92.	Budget Estimate.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
8,102 12 2	26,129 8 6	13,618 0 9	90 7 3	48,136 1 1	4,197 3 0	.....	1,67,391 1 2	2,17,840 0 0
3,794 11 6	1,796 4 0	4,229 9 9	1,293 6 3	500 8 0	3,718 5 0	.....	41,749 3 9	43,750 0 0
.....	.....	.....	.....	.....	1 8 0	.....	59 8 0	.....
3 11 0	0 8 6	.....	17 9 0	.....	.....	.....	21 12 6	.....
30 8 0	.....	19,409 0 2	16 5 0	.....	.....	.....	28,425 4 2	27,900 0 0
33,488 7 6	234 11 3	801 0 6	175 11 9	33,319 8 5	55,230 5 2	.....	4,83,366 7 4	4,99,130 0 0
1,381 2 0	8,815 0 1	467 8 7	4,337 10 0	786 12 0	2,294 7 0	.....	42,327 3 0	24,660 0 0
4,701 15 3	1,540 4 7	329 1 9	.....	16,303 4 7	1,660 10 6	.....	50,305 15 7	42,050 0 0
67,594 7 1	47,373 0 6	44,783 5 3	23,689 13 5	995 15 0	6,605 11 0	.....	4,35,922 9 2	3,45,250 0 0
4,544 6 5	7,413 9 0	3,339 10 6	541 3 3	2,224 15 6	1,042 2 0	.....	37,850 6 1	34,100 0 0
116 9 9	260 2 7	103 2 1	29 2 3	505 7 1	172 10 9	.....	3,814 7 9	3,570 0 0
.....	.....	.....	.....	.....	16 0 0	.....	23,602 9 0	30,160 0 0
.....	294 5 7	.....	.....	645 2 10	.....	.....	3,188 0 1	4,250 0 0
264 5 9	258 7 11	52 13 4	16 12 10	.....	124 15 9	.....	13,546 4 10	5,150 0 0
15 15 5	295 2 6	89 4 3	22 12 7	(A) 301 0 5	13 11 3	.....	849 7 5	10 8 0
3,472 7 0	1,278 0 2	1,468 10 11	409 15 0	877 9 5	1,125 6 4	2 8 0	30,311 8 9	11,180 0 0
1,22,513 6 10	95,189 1 2	88,641 12 10	30,640 12 7	1,04,599 4 4	77,102 15 9	2 8 0	13,62,731 12 7	12,89,000 0 0
206 4 10	3,087 9 3	1,409 15 6	5 8 0	14,714 12 8	996 3 9	.....	30,670 14 4	31,585 0 0
1,149 15 7	355 7 9	1,342 14 0	100 3 0	.....	.....	.....	8,416 13 5	9,250 0 0
.....	.....	.....	.....	1 6 0	.....	.....	11 6 0	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
40 2 1	29 12 5	5,099 12 11	87 10 4	.....	.....	.....	7,596 11 3	9,440 0 0
3,075 11 1	924 1 7	1,073 14 6	649 9 3	2,667 7 10	880 7 9	.....	33,301 7 10	31,225 0 0
6 8 0	4 7 0	.....	.....	1 15 9	3 12 6	.....	119 2 11	250 0 0
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	202 6 1	.....	.....	.....	.....	.....	202 6 1	200 0 0
4 15 0	2,110 4 7	3,733 12 5	.....	12,995 3 6	.....	.....	19,507 2 4	17,750 0 0
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
782 15 0	1,099 10 3	729 9 6	18 3 0	94 2 0	160 6 0	.....	3,764 8 5	350 0 0
.....	.....	.....	12 6 0	656 13 3	.....	.....	719 1 3	1,550 0 0
494 3 0	75 5 0	36 1 0	.....	1,304 7 4	270 9 6	.....	6,287 6 4	10,035 0 0
.....	.....	.....	.....	146 3 3	.....	.....	206 6 3	500 0 0
5,134 11 11	4,074 14 1	2,107 5 0	397 3 7	2,161 9 7	723 1 5	.....	29,890 0 1	30,500 0 0
120 0 0	11,759 1 1	94 4 0	851 1 6	1,869 0 0	672 15 10	.....	21,245 10 10	20,225 0 0
(C) 1,663 3 11	(C) 8,782 13 10	440 12 0	(C) 2,787 4 6	267 1 10	548 6 10	6,947 2 6	39,634 4 7	66,490 0 0
1,236 2 9	1,644 0 10	665 14 11	435 11 1	852 14 4	258 12 7	.....	9,620 7 5	14,150 0 0
127 7 6	11 4 0	.....	.....	43 5 3	2 0 0	.....	3,666 5 6	4,300 0 0
121 0 6	3,854 14 2	198 12 6	1,448 2 5	16 9 3	.....	.....	13,090 2 8	13,090 0 0
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	13 5 1	3 8 0	.....	.....	.....	.....	64 2 11	.....
1,833 3 3	—138 0 0	1,279 2 10	63 13 8	208 6 10	—6 13 0	.....	5,495 9 11	29,380 0 0
15,995 8 5	37,901 5 0	18,275 11 1	6,806 11 4	37,931 6 3	4,597 15 2	6,947 2 6	2,33,420 2 4	2,90,430 0 0
.....	.....	.....	.....	.....	.....	.....	18,000 0 0	18,000 0 0
11,563 9 2	14,491 15 0	9,550 0 0	6,600 0 0	3,271 12 0	6,575 0 0	9,600 0 0	1,03,385 15 5	1,08,890 0 0
32,615 4 10	34,343 10 6	27,754 11 1	12,546 5 9	8,703 9 1	11,598 6 9	.....	2,49,169 13 8	2,64,716 0 0
2,477 1 3	2,602 14 11	2,566 14 7	1,753 10 3	2,157 8 8	1,875 9 11	1,037 4 9	34,256 1 3	38,840 0 0
.....	.....	.....	.....	.....	.....	.....	1,164 10 6	1,741 0 0
.....	.....	.....	.....	.....	.....	.....	2,400 0 0	2,400 0 0
2,552 8 0	2,517 1 1	2,405 15 9	1,800 0 0	1,908 4 6	1,652 9 8	1,800 0 0	25,865 0 11	26,640 0 0
2,137 2 3	1,612 10 2	1,837 0 5	877 1 4	841 13 4	682 11 11	.....	14,774 2 3	15,000 0 0
922 9 1	947 5 7	866 10 6	639 8 6	785 11 7	648 10 9	331 3 5	11,142 2 4	12,800 0 0
501 0 0	392 12 6	577 7 5	213 4 7	201 4 6	225 14 2	.....	4,016 4 4	4,120 0 0
489 13 4	282 8 6	359 7 0	95 3 6	217 9 9	179 2 0	.....	3,424 7 4	3,250 0 0
119 0 0	252 0 0	47 8 0	31 8 0	100 0 0	.....	.....	2,343 9 10	2,480 0 0
.....	.....	.....	.....	.....	.....	.....	.....	.....
1,175 14 0	907 0 6	999 6 0	338 15 0	388 3 6	287 3 3	.....	8,304 2 3	6,700 0 0
459 1 11	269 3 9	283 11 11	56 12 6	87 4 11	133 14 7	.....	5,585 13 0	6,199 0 0
.....	.....	.....	.....	.....	.....	.....	1,240 11 3	.....
55,012 15 10	58,610 2 5	47,259 12 8	25,002 5 5	18,603 1 10	23,859 3 0	12,758 8 2	4,85,072 14 3	5,06,686 0 0
								7,97,116 0 0
								5,716 0 0
71,008 8 3	96,520 7 5	65,535 9 3	31,809 0 9	56,594 8 1	28,367 2 2	19,705 10 8	7,18,493 0 7	7,91,400 0 0

(A.)—Rs. 300 amount erroneously debited to 1 Refunds (Forests) instead of to Deposits in the accounts of the Surat Division for March 1891 now adjusted by credit to Revenue V *b*, and debit to Deposits.

No. $\frac{F}{33516}$

Forwarded to the Conservator of Forests, Central Circle, in continuation of this office memorandum No. $\frac{F.}{12543}$ dated 3rd August 1892.

F. C. BREWIN,
Chief Superintendent.

APPENDIX G.

FORM No. 59.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Supplementary Annual Account Current for the year 1891-92 including Journal Entries.

	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To opening balance	.....	678 8 6	By 1.—Refunds and Drawbacks—		
„ I.—Land Revenue, Miscellaneous—			Refunds—Divided Heads, Forest ...	.....	2,546 15 4
Other items	.....	1,975 14 0	„ 11.—Forest (as per Summary) ...	.....	(C) 7,18,493 0 7
„ VIII.—Assessed Taxes—Income Tax—			„ 19.—Law and Justice—		
Deductions by Government from salaries and pensions ...	.....	4,305 0 1 (A & D)	Jails, District Jails, Contingencies	.....	.....
„ IX.—Forest (as per Summary) ...	.....	13,62,731 12 7	„ 30.—Stationery and Printing—		
„ XII.—Interest—Interest on arrears of revenue	.....	189 7 11	Government Central Press Contingencies...	.....	.....
„ XVI.—Law and Justice—			Miscellaneous	.....	0 5 0
Fines, fees, &c.—			„ Revenue Deposits (Forests)	.....	(A&B) 56,042 4 8
Magisterial fines	.....	100 0 0	„ Cheques and Bills (Forests Cheque cancelled)	.....	2,755 7 2
„ XXIII.—Stationery and Printing—			„ Advances Recoverable—		
Stationery receipts—			Forest advances	4,39,120 7 2	
Sale-proceeds of stationery boxes	.....	2 2 0	Tentage advances	400 0 0	
			Objection Book advances... ...	2,241 12 5	
					4,41,762 3 7
			„ Cash Recoveries	.....	14,971 9 2
Other Press Receipts—			„ Forest Remittances—	(D)	
Government Central Press ...	.....	25 0 0	Remittances to Treasuries... ...	14,25,275 1 6	
„ XXV.—Miscellaneous—			Inter-divisional Transfers ...	82,802 11 3	
Unclaimed Deposits ...	.....	(B) 100 0 0	Inter-departmental Transfers ...	4,362 13 7	
					15,12,440 10 4
„ Revenue Deposits (Forest)	.....	67,619 14 5	„ Accounts Current—		
			Account between India and Bombay—		
„ Cheques and Bills (Departmental Cheques)—			III.—Items adjustable by India—		
Forest	.....	7.85,007 4 6	„ Bengal Uncovenanted Service Family Pension Fund...	.....	23 10 0
			„ Do. Military Orphan Fund ...	.....	47 0 0

„ Advances Recoverable—						„ Account between Bombay and Public Works Department, Bombay—(Ordinary Branches)—					
Forest advances	4,37,021	8	4								
Tentage advances	133	5	0			IV.—Items adjustable by Public Works Department—Inter-departmental charges	.....			419	8 0
Objection Book advances	1,903	12	10								
				4,39,058	10 2						
„ Cash Recoveries	.....			14,971	9 2	„ Account between Bombay and Public Works Department.—(Railway Branch) Railway—					
„ Forest Remittances—											
Remittances to Treasuries	452	1	3			IV.—Items adjustable by Public Works Department	.....			.....	
Inter-divisional Transfers	47,861	5	8								
Inter-departmental Transfers ...	23,398	0	0			Suspense	.....			3	0 0
				71,711	6 11						
„ Bombay Uncovenanted Service F. P. Fund—						Closing balance	.....			3,222	1 6
Widows' Branch	.....			1,981	7 7						
„ Account between India and Bombay—											
III.—Items adjustable by India—											
Bengal Military Fund	.....			450	0 0						
Bengal Military Orphan Fund ...	.....			250	10 4						
Bengal Uncovenanted Service Family Pension Fund	.....			23	10 0						
Miscellaneous...	.....			(C) 1,101	0 0						
„ Account between Bombay and Public Works Department, Bombay—											
IV.—Payments into Treasuries by Civil Officers on account of Public Works Department	.....			441	5 2						
Suspense	.....			3	0 0						
Total ...	.....			27,52,727	11 4	Total ...	.....			27,52,727	11 4

No. F 33302

Forwarded to the Conservator of Forests, Central Circle, in continuation of this office memorandum No. F.—12542, dated 3rd August 1892.

A.B.C. & D. (*Vide* remarks printed on the reverse.)

Accountant General's Office,
Bombay, 8th March 1893.

F. C. BREWIN,
Chief Superintendent.

(A) Rs. 300. Amount erroneously debited to 1 Refunds, Forests, instead of to Deposits in the accounts of the Surat Division for March 1891 now adjusted by credit to Revenue V *b* and debit to Deposits.

(B) Rs. 100. Amonnt outstanding on account of Deposit against the name of Colonel Beaumont in the Forest Account of the South Thána Division since June 1888, adjusted as per letter to the Divisional Forest Officer, South Thána, No. F.—18038, dated 3rd October 1892, under Article 255 of the Civil Account Code, 5th Edition.

(C) Rs. 1,099. Amount of percentage for cost of Mathematical Instruments supplied to the Bombay Forest Survey Party, and charged to Provincial Governments as per Comptroller General's Statement No. 1422, dated 6th December 1892 now adjusted by credit to India and debit to the Service head A. VIII *c.* of the following Divisions:—

	Rs.
North Thána	24
South Thána	597
Násik	49
Ahmednagar	16
Poona	317
Sholápur...	96
	1,099

(D) Revenue II *e.* Rs. 1 11 8 (South Thána).
„ V *c.* „ 2 6 0 (North Thána).
4 1 8

Amounts of revenue remitted to Treasury but left unaccounted for by the Divisional Forest Officers adjusted as per Treasury Accounts by credit to "Revenue" and debit to "Forest Remittances."

SOUTHERN CIRCLE.

No. 3123 A. of 1892-93.

From

R. C. WROUGHTON, Esquire,

Acting Conservator of Forests, Southern Circle ;

To

T. D. MACKENZIE, Esquire,

Chief Secretary to Government,

Revenue Department,

Bombay.

Camp Belgaum, 15th September 1892.

Sir,

I have the honour to submit herewith the Forest Administration Report of the Southern Circle for the year 1891-92, together with its subsidiary statements.

I have the honour to be,

Sir,

Your most obedient Servant,

R. C. WROUGHTON,

Acting Conservator of Forests, Southern Circle.

Through the Commissioner, Southern Division.

B 693—80—a

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FOREST ADMINISTRATION REPORT, SOUTHERN CIRCLE, FOR 1891-92.

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FOREST ADMINISTRATION REPORT OF THE SOUTHERN CIRCLE, BOMBAY PRESIDENCY, FOR THE YEAR 1891-92.

INTRODUCTION.

The year has been an eventful one on account of the general distress that prevailed owing to a scanty rainfall throughout the monsoon of 1891. This scarcity has, during a greater part of the year, prevailed over the whole Southern Marátha Country. In amelioration of the calamity, the forests of the several districts were opened to free grazing.

2. There have been no changes in the system of administration hitherto observed in this Circle and recorded in past years.

3. The area finally settled in Kánara during the year under report amounted to 27 square miles. Settlement inquiries connected with 277 square miles in Kánara and 27 square miles in Dhárwár were conducted during the year.

4. The Forest Survey Party was working in Kánara and Dhárwár, and 300 square miles were surveyed at a cost of Rs. 35,138.

5. The work accomplished by the Working Plan Parties covered 116 square miles in the forests of the Northern Division of Kánara, for a portion of which the working plans will be submitted during the current year.

6. The permanent establishments underwent no change during the year, except in the Kolába Division, to which were added the two Ranges of Karjat and Khálápur along with their establishment, from the South Thána Division of the Northern Circle, which is also a notable occurrence of the year under report.

7. Protection against forest offences was fair, the percentage of the offences prosecuted being 22 against 26 of the preceding year. Eight hundred and three cases were compounded under Section 67 of the Forest Act, and a sum of Rs. 2,216 was recovered as compensation for damages. One hundred and five magisterial cases were pending trial at the close of the year; of these no less than 97, for pollarding reserved trees in unsettled Government forests, appertain to the Southern Division of Kánara.

8. The number of cattle impounded for trespassing in closed forests amounted to 4,283.

9. Special measures of fire protection were adopted as usual in the three Divisions of Kánara, in Belgaum and in Dhárwár. The results compare favourably with those of the previous years in spite of a dry and unfavourable year.

10. Natural-reproduction, though not everywhere satisfactory, appears to have been as good as in the previous year, and this was benefited by the special measures of fire protection.

11. "Communications and Buildings" received attention as usual, and a sum of Rs. 6,809 was spent under this head during the year under report.

12. As regards forest revenue, the year has not been a prosperous one as was only to be expected, owing to the prevailing scarcity which in a great measure affected the market in the timber-consuming districts.

13. The gross revenue of the year was Rs. 11,47,707, which may be called very fair considering the general conditions of the year.

CHAPTER I.

AREA AND BOUNDARIES.

14. The following table shows the forest area of the Southern Circle for 1891-92:—

Names of Districts.	Area on 1st April 1891.		Added during the year.		Excluded or transferred to other heads.		Area on 31st March 1892.		Total Forest Area.
	Reserved.	Protected.	Reserved.	Protected.	Reserved.	Protected.	Reserved.	Protected.	
	Sq. m. A.	Sq. m. A.	Sq. m. A.	Sq. m. A.	Sq. m. A.	Sq. m. A.	Sq. m. A.	Sq. m. A.	Sq. m. A.
Kánara	740 347	2,807 96 2/8	13 371 5/40	..	..	*13 *279 2/8	754 78 5/40	2,793 356 2/8	3,547 434 2/8
Belgaum ..	494 416 7/40	196 571 2/8	.. ..	..	0 55	.. ..	494 361 7/40	196 571 2/8	691 293 1/40
Dhárwár ..	171 410 5/40	260 258	.. ..	..	..	.. ..	171 410 5/40	260 258	432 28 5/40
Bijápur	155 752 3/8	89 409	.. ..	..	..	.. ..	155 752 3/8	89 409	244 484 3/8
Kolába	305 697 1/8	57 569 1/8	64 7	7 478	2 472	1 465	381 286 1/8	63 582 1/8	445 228 2/8
			+14 154						
Ratnágiri ..	20 792/8	.. ..	.. ..	..	..	.. ..	20 792/8	.. ..	20 792/8
Total ..	1,888 6 4/8	3,411 624 2/8	91 532 5/40	7 478	2 527	15 204 2/8	1,977 11 2/8	3,404 257 2/8	5,381 269 2/8

* Of these 13 square miles 371 acres and 5 gunthás were made Reserved, and 8 acres and 34 gunthás disforested.

KÁNARA.

15. The changes in the area and classification of forests in Kánara are owing to the settlement of 17 villages of the Sirsi sub-division, where 13 square miles 371 5/40 acres were notified under Section 19 of the Forest Act ("Reserved Forests"), and 12 square miles 556 5/40 acres under Section 28 ("Protected Forests").

16. 8 34/40 acres were disforested from the Protected Forests of Kumta under Government Notification No. 4812 of 16th July 1891.

17. Mr. R. T. Wingate continued to be Forest Settlement Officer, Kánara, until 31st January 1892, when he proceeded on furlough, and was succeeded by Mr. W. D. Sheppard, I.C.S. The former completed field work connected with 47 villages of Kárwár and 26 of Yellápur, having a forest area of 190·51 square miles and 87 square miles respectively. The final report on the former is reported to be in course of preparation, and that on the latter was submitted during the year.

18. The following area was notified under Section 4 of the Forest Act:—

Acres.	Gunthás.	
8,730	24	in Honávar.
322	31	in Sirsi.

19. The Demarcation Party under the Settlement Officer is reported to have completed the survey of a line dividing the Reserved from the Protected forests which were settled in the Sirsi and Kumta sub-divisions. The line measured, aggregated 90 miles 7 furlongs.

20.—Seven miles of 30 feet lines, dividing Protected from Reserved forests, were cleared in the Mundgod sub-division and 18½ miles were cleared in Ankola, under the supervision of the Forest Officers. The average cost per mile amounted to Rs. 33.—

21. Fair field-books, showing particulars of survey numbers and boundary marks for 12 villages in Kumta and 4 in Ankola, as well as maps, are reported to have been prepared for the use of the Village and Forest Officers.

BELGAUM AND DHÁRWÁR.

22. Mr. Gray was Forest Settlement Officer for Belgaum and Dhárwár till December, when he relinquished charge to Mr. Knight.

23. From the 1st April to the middle of May, Mr. Gray was at work in the Kalghatgi sub-division and completed the inspection of the forests there, aggre-

gating 27·59 square miles. He then took over charge of the Collector's office, Dhárwár, and retained it until the end of October, when he framed and submitted the final report on the Khánápur and Parasgad forests which he had inspected in the previous years.

24. After Mr. Knight took over the office from Mr. Gray he says he found himself unable to give any attention to settlement work, as he had to retain the charge of a very heavy revenue and magisterial office, of which he was not relieved until almost the close of the year.

BIJA'PUR.

25. The demarcation of the forest area of this Division still awaits sanction. Preparation of maps of the forest areas, which were reported on during the previous years, was commenced during the year under report.

KOLA'BA.

26. The changes appearing against Kolába in the table given in paragraph 14 above are owing to the two ranges of Karjat and Khálápur having been transferred from the Northern to the Southern Circle.

27. The forest area of these ranges is 81 square miles 342 acres :—

	Square miles.	Acres.
Karjat	48	113
Khálápur	33	229

28. The expenditure on account of settlement and demarcation during 1891-92, amounted to Rs. 26,400 as shown below :—

	Rs.	Rs.
Not charged to Forests.		
Allowances of the Forest Settlement Officer, Kánara ...	1,650	
Salaries and allowances of the Forest Settlement Officer, Belgaum and Dhárwár	14,252	
		15,902
Charged to Forests.		
Salaries and allowances of the establishments employed under the Forest Settlement Officer, Kánara, and contingencies	3,250	
Salaries and allowances of the establishments employed under the Forest Settlement Officer, Belgaum and Dhárwár, and contingencies	2,392	
Cost of demarcation	4,856	
		10,498
Total ...		26,400

29. The sums expended during the year under the following heads were :—

	Rs.
A. Pay and allowances of the Forest Settlement and Demarcation Officers and of their establishments	21,070
B. Compensation	1,217
C. Miscellaneous expenditure	473
Total ...	22,760

30. The settlement of the year, which is represented by the above expenditure, comprises :—

	Rs.
26 square miles, 287 acres, finally sanctioned and settled ...	3,750
134·10 square miles, settlement in progress (areas for which field work has been completed)	19,010
Total ...	22,760

31. The cost per square mile of the settlement finally effected during the year was Rs. 141·7.

32. The total cost for settlement operations up to 31st March 1891, amounted to Rs. 2,76,022, and that on account of the area gazetted during 1891-92, to Rs. 3,750. The total area finally settled and gazetted up to the end of 1891-92 is 2,425·14 square miles, and the cost per square mile up to date comes to Rs. 115·3.

33. The following table shows the progress made in the settlement of the forests which were gazetted under Section 34 of the Forest Act :—

Name of Collectorate.	Class of Forests.	At the commencement of the year. — Areas under Section 34 in which private rights have not been enquired into, settled or recorded.		Areas dealt with during the year and sanctioned by Government. — Under Section 19, Chapter II of the Forest Act.		Under Section 28, Chapter IV of the Forest Act.		Area of Reserved Forests alienated under Section 26.		Area of Protected Forests disforested under Government orders.		At the end of the year. — Areas under Section 34 in which private rights have not been enquired into, settled or recorded.	
		Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.
Kánara ..	Reserved ..	214	286	....	....	....	....	....	....	....	....	214	286
	Protected ..	2,369	267	13	371	12	556	....	....	0	9	2,342	611
Bijápur ..	Reserved ..	155	76	....	....	....	....	....	....	....	....	155	76
	Protected ..	89	409	....	....	....	....	....	....	....	....	89	409
Kolába ..	Reserved ..	11	353	....	....	....	....	....	....	....	....	11	353
	Protected ..	....	....	....	....	....	....	....	....	....	....	....	....
Total ..	Reserved ..	381	75	....	....	....	....	....	....	....	....	381	75
	Protected ..	2,459	36	13	371	12	556	....	....	0	9	2,432	380

34. The area remaining to be dealt with is :—

	Square miles.	Acres.
In Kánara, as detailed above	2,557	257
In Kolába (area of 4 villages of Nágothna notified under Section 34)	11	353
In Dhárwár (area already notified under Section 4) ...	266	286
In Belgaum (— do. do. do.) ...	258	130
Total ...	3,093	386

35. The settlement of the Belgaum forests has been completed and reports submitted to Government, the last report on the Khánápur forests of that Division having been sent in with this office No. 1052, dated 30th May 1892.

36. In Bijápur, too, the settlement has been completed (paragraph 15 of the Administration Report for 1890-91). There, only lands aggregating 22 square miles 488 acres remain to be dealt with, if the proposals regarding them receive Government sanction.

37. An early demarcation and settlement of the forests in Kánara adjoining *supári* gardens is most desirable. A proposal was set on foot during the year for creating an additional Forest Settlement Office, but Government in their memorandum No. 101 of 7th January, 1892, expressed inability to spare an officer for the duty.

CHAPTER II.

SURVEYS AND WORKING PLANS.

I.—SURVEYS.

38. The Bombay Forest Survey Party continued the topographical survey, and 300 square miles are reported to have been surveyed at a cost of Rs. 35,138 during the survey year ending 30th September 1891, the cost per square mile for the 8″ scale being Rs. 112 against Rs. 83-8-4 of the year ending 30th September 1890.

39. The details of work done by the party in the several districts are given in the following table :—

District.	Scale.	Triangulation. Area in square miles.	Triangulation. Total Cost.	Triangulation. Cost per square mile.	Traversing. Area in square miles.	Traversing. Total Cost.	Traversing. Cost per square mile.	Details. Area in square miles.	Details. Total Cost.	Details. Cost per square mile.	General Cost per square mile.	Remarks.
			Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.	Rs. a. p.	
North Kánara.	8″	340	3,637 11 10	10 11 2	354	4,611 13 9	...	2,699	23,829 11 8	...	.....	
							13 0 8	...	.....	88 4 7	112 0 0	140 square miles of triangulation and 85 square miles of traverse are in advance in the Yellápur, Mundgod and Sirsi tálukas.
Dhárwár ...	8″	...	.....	...	31	401 10 9	...	301	2,657 9 7	...	.....	Bankapur and Kalghatgi tálukas.
		340	3,637 11 10	...	385	5,013 8 6	...	300	26,487 4 10	...	35,138 9 2	

II.—WORKING PLANS.

40. During the year the two parties continued to work under one Divisional Forest Officer, Mr. Bell. Mr. Oliver proceeded on leave at the beginning of the year, and on return he was posted to the Northern Circle.

41. The work accomplished is shown in the table below :—

	Lines 10—20 feet broad. Cleared of regrowth, &c.	Lines 10—20 feet broad. Jungle cut and cleared.	Lines 10—20 feet broad. Total cut and cleared.	Linear miles surveyed.	Posts fixed.	Test trees felled.	Number of Compartments formed.	Test Area estimated.	Area for which working plan has been formed.	Total Cost incurred.	Cost per Acre.
		Miles.	Miles.	Miles.	No.			Acres.	Acres.	Rs. a. p.	
Party I ..	...	138·47	138·47	142·42	1,080	..	74	3,550·02	42,633·30	28,449 15 9	..
Party II ..	..	83·05	83·05	75·51	1,585	..	56	2,072·48	31,850	21,001 9 8	..
									74,483	49,451 0 0	10·6

42. It will be seen from the above that the data necessary for the preparation of working plans have been prepared for 74,483 acres or 116 square miles of forests in the Northern Division of Kánara. The working plans for a portion of these forests will, it is expected, be submitted during the current year. Those for the area shown in paragraph 22 of the Administration Report for 1890-91 were submitted with this office No. 4716, dated 28th January 1892.

43. Each of the parties was worked by an Extra-Assistant Conservator ; party No. I was under Mr. Haripad Mitra and party II under Mr. N. D. Satáráwálá. The cause of decrease in the work done by the latter party was in a great measure owing to the fact that no coolies could be obtained in the jungles at the beginning of the season.

44. Certain special data required for preparing working plans for a great portion of the area shown in the above table, could not be collected owing to there being only one Divisional Officer in charge of the two parties, who was unable to keep pace with the preliminary work done by the two parties.

CHAPTER III.

PROTECTION AND IMPROVEMENT.

ESTABLISHMENT.

45. Mr. Murray held charge of the Northern Division of Kánara in addition to his own (Belgaum), until 2nd May, when Mr. Talbot returned from furlough.

46. Mr. Stewart proceeded on sick leave on the 7th April 1891. He made over charge of Southern Kánara to Mr. Haselden, and Mr. Woodrow resumed it on the 10th May 1891.

47. Mr. Ryan was on privilege leave from 5th to 29th October, during which period Mr. Hight held charge of the Divisional Office, Bijápur, in addition to that of Dhárwár.

48. Mr. Murray went on privilege leave for three months, on the 9th October 1891, and relinquished charge of the Belgaum Division to Mr. Gleadow. When the former resumed his charge the latter proceeded to Dhárwár and there received charge of the Divisional Office from Mr. Hight, who went on 3 months' privilege leave on the 28th January 1892.

49. Mr. G. K. Betham handed over charge of the Kolába Divisional Office to Mr. Thánedár on the 21st May and proceeded on sick leave. The latter was relieved of the charge by Mr. Greatheed on 1st July 1891.

50. Mr. Oliver, who was on special duty connected with the demarcation of *dalhi* lands in Kolába, availed himself of 6 months' leave on private affairs from the 9th May 1891, and on return he was posted to the Northern Circle.

51. The only change in the *personnel* occurred in the Kolába Division, where 2 foresters and 60 guards were added to the establishment at a monthly cost of Rs. 533, with the two ranges of Karjat and Khálápur which were transferred from the Northern to the Southern Circle.

52. The cost of establishment of the Southern Circle during 1891-92 amounted to Rs. 2,67,816 against Rs. 2,66,529 of the year before.

53. A Committee assembled at Bombay in March 1891, composed of the Inspector-General of Forests to the Government of India, the Conservator of Forests, Bengal, and several officers of this Presidency, to discuss the reorganization proposals of the subordinate staff, submitted by the Committee which sat at Poona during the rains of 1889. The original proposals were subjected to a further reduction. In consequence of this, revised proposals were called for in Government Resolution No. 4964 of 21st July 1891. These were submitted in December 1891.

BREACHES OF THE LAW.

54. The number of prosecutions instituted is as follows :—

Division.	1890-91.	1891-92.
Northern Division of Kánara	17	21
Central Division of Kánara	8	20
Southern Division of Kánara	18	103
Belgaum	49	36
Dhárwár	15	7
Bijápur	11	8
Kolába	49	122
Ratnágiri	27	29
Total ...	194	346

55. The number disposed of by Magistrates is :—

No.	Divisions.	1890-91.			1891-92.			Percentage of failures.	
		Cases in which conviction was obtained.	Cases in which conviction failed.	Total.	Cases in which conviction was obtained.	Cases in which conviction failed.	Total.	1890-91.	1891-92.
1	Northern Division, Kánara ..	14	3	17	10	11	21	18	52
2	Central do. do. ..	8	1	9	16	4	20	11	20
3	Southern do. do. ..	7	10	17	5	2	7	59	28
4	Belgaum	31	21	52	27	12	39	40	31
5	Dhárwár	12	3	15	6	1	7	20	14
6	Bijápur	7	3	10	8	...	8	30	...
7	Kolába	44	6	50	103	19	122	12	16
8	Ratnágiri	23	4	27	21	7	28	15	25
	Total ...	146	51	197	196	56	252	26	22

56. The number of cases which remained awaiting trial at the close of the year under report was 105 against 11 of the year before.

57. The increase in the number of prosecutions is met with chiefly in the Southern and Central Divisions of Kánara and in Kolába.

58. In Central Kánara and Kolába the increase was, respectively, due to illicit cutting of reserved kinds of trees for *ráb* and to illicit cultivation of *dalhi*. In the former Division there were 11 *ráb* cases.

59. In the Southern Division of Kánara the increase amounted to 85, and it was owing to garden cultivators, in defiance of orders, having pollarded reserved kinds of trees for *soppu*. No less than 97 of these *soppu* cases were pending at the close of the year under report. The Divisional Forest Officer reports that these offences were of so grave a nature that proceedings were delayed till the Assistant Collector visited the táluka.

60. One case was again let off in Siddápur, because the Magistrate held that prosecution was not legal till the forests had been settled. The case was sent to the District Magistrate for trial on the strength of the opinion of the Remembrancer for Legal Affairs (Government Resolution No. 6728, dated 24th September 1890), but that officer referred it to Government (Resolution No. 6425, dated 18th September 1891).

61. The speedy settlement of the Siddápur forests and the remaining villages in Sirsi is urgently called for, as by the last quoted Government Resolution, Mr. Woodrow says, forest protection is at present almost at a stand-still. "Nearly the whole of the Siddápur Táluka," he adds, "is occupied by garden cultivators, the jungles are already to a great extent destroyed, and as we can at present do nothing to save them from further destruction an early settlement is the only chance of there being any forests, except evergreens."

62. The large percentage of failures in the Northern Division of Kánara was owing to certain cases of theft of wood in "Reserved" forests, in which the offenders refused to pay compensation under Section 67 of the Forest Act, and were, therefore, taken into Court.

63. Details of cases of misappropriation of timber and minor produce, as required by Government letter No. 6881, dated the 29th August 1892, are given in Statement 50A, appended.

64. The cases dealt with under Section 67 of the Forest Act were as shown in the following statement:—

No.	Divisions.	1890-91.				1891-92.			
		Total number of cases disposed of.	Number of cases compounded.	Number discharged.	Amount of compensation recovered in cases compounded.	Total number of cases disposed of.	Number of cases compounded.	Number discharged.	Amount of compensation recovered in cases compounded.
					Rs.				Rs.
1	Northern Division of Kánara ...	22	21	1	196	8	8	...	49
2	Central Division of Kánara ...	56	53	3	157	61	60	1	197
3	Southern Division of Kánara ...	98	98	...	299	45	45	...	91
4	Belgaum	361	361	...	248	210	210	...	351
5	Dhárwár	52	52	...	138	65	65	...	180
6	Bijápur	76	76	...	261	49	49	..	215
7	Kolába	266	266	...	1,033	167	167	..	546
8	Ratnágiri	121	121	...	420	199	199	...	587
	Total ...	1,052	1,048	4	2,752	804	803	1	2,216

65. Increase occurs only in the Central Division of Kánara and Dhárwár, and it is due (*a*) to illegal lopping of trees for *soppu* and (*b*) to unauthorized felling of wood.

66. On the other hand, there is a marked diminution in the Belgaum Division, where there was a decrease in the number of offences on account of firewood removed from the forest without passes, due to somewhat greater severity in dealing with offenders.

67. The large decrease in Kolába is apparently owing to a greater proportion of cases having been taken into Court.

68. No appeal was made to the Conservator against any of the decisions passed in the cases compounded.

69. Statement 50 B shows the number of cases in which damages amounting to one rupee, two rupees, and so on up to the maximum, were recovered under Section 67 of the Forest Act, during the year.

70. A statement showing the number of cases compounded and taken into Court is given below :—

No.	Division.	Taken into Court.		Compounded under Section 67.		Total number of cases.	
		1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.
1	Northern Division of Kánara ...	17	21	22	8	39	29
2	Central Division of Kánara ...	8	20	56	60	64	80
3	Southern Division of Kánara ...	18	103	98	45	116	148
4	Belgaum	49	36	361	210	410	246
5	Dhárwár	15	7	52	65	67	72
6	Bijápur	11	8	76	49	87	57
7	Kolába	49	122	266	167	315	289
8	Ratnágiri	27	29	121	199	148	228
	Total ...	194	346	1,052	803	1,246	1,149

71. The cases taken into Court during 1891-92 amounted to 346, and 11 were pending at the close of the year 1890-91. Of these, 252 were disposed of by Magistrates and 105 remained undecided at the close of the year under report.

72. The number of animals impounded during 1891-92 in open and closed forests is given below :—

No.	Division.	Number of Animals impounded.		Total.	Remarks.
		In open Forests.	In closed Forests.		
1	Northern Division of Kánara ...	...	173	173	
2	Central Division of Kánara ...	346	194	540	
3	Southern Division of Kánara ...	121	122	243	
4	Belgaum	1,892	1,239	3,131	
5	Dhárwár	686	1,680	2,366	
6	Bijápur	1,279	...	1,279	
7	Kolába	...	763	763	
8	Ratnágiri	119	112	231	
	Total ...	4,443	4,283	8,726	

73. *Civil Suits.*—In the civil suit Gopi Mahábleshwarbhat *vs.* Sheshu Manju (paragraph 52 of the Administration Report for 1882-83) the High Court on appeal awarded the plaintiff one rupee nominal damages, each party to bear his own cost.

FOREST FIRES.

74. During the year special measures of fire protection were adopted as usual in the three Divisions of Kánara and in Belgaum and Dhárwár. In some of the divisions a larger area was fire-traced than in the year before.

75. In Bijápur no area was specially protected. The Divisional Officer reports that as the season was exceptionally dry and there was no grass on the hills after January, there was no need to fire-trace the forests, and that it would have been impossible to adopt any measures. He further says that no fire entered any of the forests including *Kurans*.

76. In Kolába no steps appear to have been taken, and the Divisional Officer reports "it was considered unnecessary for any special measures to be taken," except in the two newly added ranges of Karjat and Khálápur, where, out of 19,407 acres attempted, 774 acres are reported to have been burnt.

77. The following statement shows the results of special protection reported for the past years:—

Division.	Area in Square Miles.			Proportion of failures to area attempted.	Cost.		Proportion of area under fire protection to total area of Reserves.
	Attempted.	Failures.	Protected.		Per Square mile protected.	Per acre protected.	
					Rs.	Pies.	
Northern Division, Kánara	578·11	3·50	574·61	·06	18·89	5·6	...
Central Division, Kánara.	162·57	6·12	156·45	3·77	21·15	6·3	...
Southern Division, Kánara	45·99	9·08	36·91	19·74	5·79	1·7	...
Belgaum	174·31	3·53	170·78	2·02	8·40	2·5	...
Dhárwár	55·65	2·06	53·59	3·70	10·39	3·1	...
Kolába	30·32	1·20	29·12	3·95	3·60	1·07	...
Total in 1891-92 ...	1,046	25	1,021	2·39	16·14	4·8	53·2
Total in 1890-91 ...	1,059	9	1,050	0·8	14·07	4·2	56
Increase or Decrease in 1891-92	—13	+16	—29	+1·59	+2·07	+·6	—2·8

78. A sum of Rs. 1,056, which in Central Kánara was due for operations conducted during 1890-91, was actually paid during the year under report. This has consequently increased the cost per square mile.

79. The following areas are estimated to have escaped fire without adoption of special measures:—

	Acres.
Northern Division of Kánara	388,532
Central do. do.	504,341
Southern do. do.	694,919
Belgaum Division	324,393
Dhárwár do.	234,701
Bijápur do.	137,466
Kolába do.	251,340
Ratnágiri do.	12,656
Total ...	2,548,348

80. During the previous season, the area reported as having escaped fire without the taking of special measures amounted to 4,094 square miles, or 79 per cent. of the whole area. During the year under report it amounted to 3,982 square miles, or 74 per cent. of the whole area.

Northern Division of Kánara.

81. The results of the fire protection are reported to have been satisfactory during the hot season which was an exceptionally dry and long one. No rain fell from January till May, and protection-lines and traces had to be opened much earlier than usual. There was one case of fire in the dry bamboo jungles between Tátwhál and Sámbráni, which calls for special notice. On five different occasions the forests were set on fire by the villagers for grazing purposes, and, as the dead bamboos were as dry as tinder, these fires were put out with great difficulty and not before 2,000 acres were burnt.

Central Division of Kánara.

82. Fire protection in the Yellápur range is reported to have been very successful. In Mundgod, where cattle from plain districts were brought to graze, the area burnt is attributed partly to lateness in commencing operations and partly to incendiarism. It is also reported that as long as the distressed cattle were grazing no fires took place, but after they had left, a fire broke out in different parts three times in one day, and if it had not been for the exertions of the Range Officer and his guards much more would have been burnt.

Southern Division of Kánara.

83. The cause of the fires is ascribed to the spreading of the fires lit by the villagers in their *bén* (adjuncts of cultivation) numbers, and another, the chief one, is that people wilfully set fire to obtain an early crop of grass.

84. The results of fire-protection in the Belgaum Division compare very favourably with those of the previous years, in spite of a very dry and unfavourable year. A successful attempt was made to prevent the annual fires which sweep across the forests to the west. Of the area specially protected, 1,558 acres were burnt in Khánápur and 600 acres in Belgaum. The area was filled with long dry grass which was very inflammable.

Dhárwár.

85. Although distressed cattle were admitted into all the closed portions of the Reserves except plantations, the increase in the area burnt was comparatively small.

86. Mr. MacGregor records that during his hot-weather tour of 1892 he particularly noted the rareness of fires in the Central and Northern Divisions of Kánara. Even in the areas not specially protected fires were much less frequent than usual.

GRAZING AND FENCING.

87. The year's revenue from grazing shows an increase of Rs. 18,678; it amounted to Rs. 91,487 against 72,809 of the previous year. The increase occurs mostly in Dhárwár and Belgaum, and is due to the revised scale of fees levied under the Grazing Regulations sanctioned in Government Resolution No. 3595 of 23rd May 1890, now first introduced.

88. Owing to the prevailing scarcity of fodder all the forests were thrown open for free-grazing. But these orders were issued two or three months after the new system was introduced. Had the regulations been uniformly carried out, the revenue would have been still larger. The new rules could not be brought into force in Bijápur, owing to the failure of the rainfall and consequent fodder famine.

89. An increase is also noticeable in the grazing receipts of Kánara, where a higher rate of fee was sanctioned for outside cattle, and those belonging to professional graziers. Cattle from the plain districts were driven into the Kánara forests, and there they were permitted freely to graze in "Protected" forests, fees only being collected from the wealthy owners. Orders were received that, if necessary, these cattle should also be allowed to graze in the "Reserved" forests.

90. The areas closed to grazing during 1890-91 and 1891-92 were as shown below :—

Divisions.	Area closed.			
	1890-91.		1891-92.	
	Sq. miles.	Acres.	Sq. miles.	Acres.
Northern Division of Kánara ...	190	214	190	214
Central do. do. ...	81	455	81	455
Southern do. do. ...	123	629	123	629
Belgaum do.	24	536	23	487
Dhárwár do.	90	307	8	109
Bijápur do.	43	291	.....	
Kolába do.	6	567	6	567
Ratnágiri do.	20	79	20	79
Total ...	581	518	454	620

NATURAL REPRODUCTION.

I.—By seed and II.—By Coppice.

Northern Division of Kánara.

91. The Divisional Forest Officer reports that in the specially protected areas the natural reproduction is, in many parts, very satisfactory, particularly along the Bárchi and Kátinhal *nálas*, but that in the large dense teak tracts of the Supa range, where the cover is dense, practically no new teak seedlings are coming on. Mr. MacGregor noted during his tour the "total absence of teak seedlings in Gund, Mandurli, Hudsi, &c., where the best teak forests are to be found and this even in those areas which have been protected from fire for the past two years."

92. Mr. Talbot remarks that favourable seasons for the germination of the teak seeds and the success of the young plant only occur at intervals.

Central Division of Kánara.

93. Natural reproduction is as favourable as was reported last year. Wherever fellings have taken place and light let into the jungles, seedlings are said to have sprung up profusely, and young trees, which were suffering from too much shade, are now asserting themselves vigorously. All the successfully protected forests, especially the teak forests of Yellápur, are full of young growth.

94. Mr. Haselden reports that in the Hosalli jungles of Yellápur a large quantity of blackwood seedlings was observed, and a fire-path was, therefore, made round that patch which is about 2 acres. The result is that about 2,000 young trees are ready for transplantation.

Southern Division of Kánara.

95. The Divisional Officer reports that there is nothing to fear if only nature was allowed to act, but that fires kill off seedlings and shoots before they can acquire strength.

96. In the large forests, seedlings are said to be plentiful, and of the kinds required, but few survive the struggle through dense mass of bamboo and undergrowth that prevents the plants from reaching the light. The robust few that survive are so deformed and twisted that they grow into very indifferent trees.

97. Mr. Woodrow further reports that he made a couple of tests with the object of ascertaining the number of small plants and seedlings in the Bilki forests of Sirsi, with the result that by one of the tests 402 plants below 6″ in diameter were found per acre.

Belgaum Division.

98. Natural reproduction was benefited by the special measures of fire-protection. These appear to have more than counterbalanced the drawback of a deficient rainfall. In the teak forests of Nágargáli and Kirpoli, where most of the large timber has been cut out and thinnings are made, the reproduction was good.

99. In the Hemadgé forests of the Khánápur range an area of 300 acres was enclosed with a thorny fence, where natural reproduction was most excellent.

100. In the fuel-cuttings the reproduction by coppice continues to be good.

Dhárwár Division.

101. The Divisional Officer reports that in the cuttings natural reproduction was progressing very favourably.

Bijápur.

102. The Divisional Officer remarks that there has been considerable improvement in the Bádámi range and some in Bágalkot. The stools in the *coupe* exploited by Government Agency at Shivpur in Bádámi are said to have coppiced exceedingly well.

103. Natural reproduction by seed is reported to be poor apparently for the reason explained in previous years' reports.

Kolába and Ratnágiri.

104. The Kolába and Ratnágiri Districts were again made into two separate forest charges since the year closed.

105. Mr. Stewart, who only took over charge last July, reports that according to Mr. Greatheed's diaries reproduction from stools was favourable in some parts.

ARTIFICIAL REGENERATION.

Northern Division of Kánara.

106. The teak, casuarina and divi-divi plantations in the Division are reported to be doing well. 4,000 seedlings were put down in breaks caused by teak fellings in the Haliyál Táluka. Of these, 2,800 are succeeding and the rest died from drought.

107. Six acres of sandy dune land were added to the Argé casuarina plantation, and 7,000 plants were put out, of which 4,000 died. 185 seedlings were also put out to fill up blanks in the casuarina plantation at Kárwár.

108. The amount expended in the division under this head was Rs. 973.

Central Division of Kánara.

109. In the Sabgeri jungles of the Yellápur range about 20 acres were sown with teak seeds, the result being that about 300 seedlings germinated. Probably better results will be reported next year as teak seeds often take a long time to germinate. Wherever teak fellings were made, seeds were sown near the stools. Nurseries were also formed in the several places by sowing 19 maunds of seed, and 9,060 teak and 2,000 blackwood seedlings available for transplantation were raised therein. These are reported to be looking well and healthy.

110. In the Mundgod range 4 acres were formed into a teak plantation, and this is reported to be promising well. Out of 673 plants put out in the Hulihond plantation 614 survived. Besides these, of the 2,551 teak and 150 matti (*terminalia tomentosa*) plants put down in the range, 1,931 of the former and 122 of the latter survived.

111. In the Devarbail and Báleguli plantations of the Ankola range 2,155 young trees of several kinds were put out. Of these 1,820 are alive.

112. About 23 maunds of seed were sown and 8,960 seedlings germinated, and these are said to promise well. Nurseries were also kept up, wherein 4,816 plants of teak, harda and junglewood were available for transplantation.

113. In the Honnébail jungles 100 young trees were put out from the previous year's nursery, of which 70 are said to be still alive.

114. In the Kumta range 2,335 plants of teak, harda and junglewood were put out. Of these, 1,765 died. The Divisional Forest Officer says that although so many are reported to have died, yet a good many are expected to revive during the present rains. About 12 maunds of seed were sown in a nursery at Katgál and 20 maunds in other places.

115. The amount expended was Rs. 484.

Southern Division of Kánara.

116. The disease reported to have attacked the casuarina trees in the Kásarkod plantation has not spread, although some trees slightly affected before have died during the year.

117. The Divisional Forest Officer reports that "the expert opinion from Dehra has not helped us to discover the nature of the disease which remains as much a mystery as before."

118. Seeds of different kinds were collected and sown broadcast by forest guards, but those that had sprouted are said to have died during the hot

weather. In the Honávar range 25 acres were planted with teak seedlings that had germinated in, and were then transplanted from, the forests; and 1,515 seedlings are thriving.

119. The amount expended was Rs. 57.

Belgaum.

120. Here, the experiment of sowing seeds with hoe-picks made in the previous year, and repeated in that under report, is reported to have failed.

121. A regular plantation of 6 acres was made in Deshnur, Sampgaon range, and the *nim* and mango plants put down therein are coming on very well. At Hemadgé, Khánápur range, 300 acres were fenced in, and sown with seeds of various kinds, and it is reported that a fair percentage of plants was noticeable.

122. The expenditure incurred was Rs. 47.

Dhárwár and Bijápur.

123. No planting was done in these divisions, the season being unusually dry. In Bijápur drought killed off the seedlings which previously existed at Hosur and Manglur; and 68 maunds of seed were sown broad-cast. In Dhárwár a few sowings were made with the pick-hoe.

124. The expenditure amounted in Dhárwár to Rs. 270, and in Bijápur to Rs. 52.

Kolába-Ratnágiri.

125. Fifty-four acres 30 gunthás in the Karjat and Khálápur ranges of the Kolába division were sown with sandalwood and other seeds, in pits and broad-cast.

126. In Ratnágiri 24,777 seedlings were transplanted from the Dápoli nursery, and about 6 maunds of seed sown broad-cast.

127. The amount expended was Rs. 128.

COMMUNICATIONS AND BUILDINGS.

128. A sum of Rs. 6,809 was expended on works under this head: Rs. 2,660 on "Roads and Bridges," Rs. 2,990 on "Buildings" and Rs. 1,159 on other works.

129. In the Northern Division of Kánara the Bhágwati-Poteli forest road as well as other forest cart-tracks were repaired at a cost of Rs. 458, and Rs. 25 were spent on the Haliyál Depôt road. A well was sunk at Madnalli (Rs. 250), and Rs. 60 were expended in repairing bridges and a timber slide in Kárwár.

130. Forest buildings were repaired at a cost of Rs. 255.

131. In the Central Division of Kánara Rs. 250 were paid towards repairing Hittal-Kárgadde-Mágod road. The Kannigeri-Udámki road was put in repair (Rs. 393), and three new watch-houses built for Rs. 800. Rs. 914 were spent in repairing forest buildings, rest-houses, watch-houses, &c., of the division, and Rs. 300 in sinking a well in Mundgod.

132. In the Southern Division of Kánara a well was sunk near the Singanhalli Timber Depôt,—the need of this well had been much felt in the past—at a cost of Rs. 300, and Rs. 26 were laid out on repairing forest tracks. Rs. 275 were also spent in repairing forest watch-houses, &c.

133. In Belgaum a sum of Rs. 1,403 was expended on the Nágargáli-Halshi road, and Rs. 382 was paid to the Revenue Department for exemption from toll fees on fuel carts passing by the Gunji Local Fund road. A forest watch-house was newly built for Rs. 300 and old buildings put in repair (Rs. 223).

134. In Dhárwár the Devikop rest-house and all náka houses were repaired at a cost of Rs. 229.

135. In Kolába Rs. 588 were spent under this head, and in Ratnágiri the Bánd road was repaired (Rs. 29), and a new guard-house built for Rs. 74.

CHAPTER IV.

YIELD AND WORKING.

136. There was no change in the mode of working from that reported in previous years.

137. The following is a summary of the yield of the forests of the several divisions for 1890-91 and 1891-92 :—

Northern, Central and Southern Divisions of Kánara.

138. The yield of large teak, exploited, increased from 345,894 cubic feet in 1890-91 to 354,459 cubic feet in 1891-92; and of small teak, such as poles, rafters, &c., from 54,578 to 81,360 cubic feet.

139. The large junglewood removed, fell from 324,279 cubic feet in 1890-91 to 165,756 cubic feet in 1891-92; but the yield of small junglewood rose from 4,523 cubic feet to 5,968 cubic feet, and of large blackwood from 19,538 to 24,546 cubic feet; the blackwood poles and pieces were 137 cubic feet in 1891-92 against 914 in 1890-91.

140. The increase in the yield of large teak for the year under report, occurs in the Central Division of Kánara, where 25,000 cubic feet were brought in in excess of the quantity exploited in the previous year; of these 25,000 cubic feet, about 23,000 were taken down to the Kodibág Depôt from the Nersol forests of Yellápur. While, the quantity exploited in Northern and Southern Kánara was less by 13,529 and 2,935 cubic feet, respectively. The quantity of timber brought to the Haliyál Depôt (Northern Kánara) was, however, greater by 7,908 cubic feet, but there was a decrease of about 8,000 cubic feet in the quantity taken down to the Kodibág Depôt from the Gund forests.

141. The decrease in the quantity of large junglewood is met with in all the three divisions; but of the blackwood, 6,100 cubic feet more were brought in the Northern Division.

142. The number of bamboos extracted fell from 3,828,355 in 1890-91 to 3,294,192 in 1891-92.

143. The firewood exploited rose from 1,635,124 cubic feet to 2,025,643 cubic feet, and the yield of myrobollams from 3,061 to 3,346 khandis.

144. The outturn of sandalwood decreased from 84 khandis in 1890-91 to 61 khandis in 1891-92; and of charcoal from 6,060 to 4,422 cubic feet.

145. The decrease in the number of bamboos is met with in the Northern and Central Divisions of Kánara, where it amounted to 437,848 and 132,479, respectively. The demand from the plain districts was small owing to the distressed state of the country. It is also reported that since the tolls were established near Haliyál, and railway rates increased for bamboos, the demand has diminished. A slight increase in the number of bamboos exported from the Southern Division of Kánara and from the Kárwár range is to be noted.

146. The increase in the quantity of firewood is met with in Northern (9,447 cubic feet), Central (346,953 cubic feet) and in Southern Kánara (34,119 cubic feet). The large increase in Central Kánara is due to the quantity removed from the Ankola range on the coast for export. The quantity of fuel supplied to the Railway Company from the Supa range of the Northern Division, amounted to 289,000 cubic feet against 182,104 in the previous year.

147. The increase in the yield of myrobollams is accounted for by the better crop in the Northern Division. There was some difficulty in finding mature sandalwood trees, hence the decrease in the outturn of sandalwood shown above, which occurs chiefly in the Southern Division.

Belgaum Division.

148. The large teak exploited during the year under report amounted to 4,424 cubic feet against 9,771 cubic feet of the preceding year. The outturn of blackwood and junglewood measured 184 and 4,801 cubic feet, respectively, against 1,063 and 14,310 cubic feet.

149. Of small timber (teak poles, &c.), there were 34,979 cubic feet against 29,293; and of blackwood and junglewood, 190 and 12,313 cubic feet, respectively, against 507 and 22,454 cubic feet.

150. The quantity of firewood exploited during the year shows a decrease. The running-fuel brought in for the Railway Company amounted to 2,893,400 cubic feet against 3,210,120 cubic feet of 1890-91; lighting-fuel to 9,522 cubic feet against 13,600; and the firewood removed for other purposes to 724,422 cubic feet against 731,567.

151. The yield of myrobollams fell from 5,929 khandis in 1890-91 to 5,148 in 1891-92, and the number of bamboos from 405,569 to 402,037. But the quantity of charcoal rose from 11,837 cubic feet to 21,797.

Dhárwár.

152. The outturn of teak timber was 59,635 cubic feet against 63,816 cubic feet in 1890-91, and of fuel 213,722 cubic feet against 206,374. The quantity of junglewood rafters, blackwood pieces, *janthies*, *jaráyet* pieces, &c., amounted to 10,282 cubic feet against 11,635.

153. On the other hand, the number of bamboos extracted increased from 284,984 in 1890-91 to 335,247 in 1891-92; and 15 khandis of myrobollams were also obtained during the year under report.

Bijápur.

154. The yield of timber decreased from 5,710 in 1890-91 to 2,659 cubic feet in 1891-92; of cart-loads of firewood, from 80,550 to 65,991 cubic feet; of animal-loads, from 88,672 to 65,656 cubic feet; and of head-loads from 121,797 to 104,765 cubic feet.

Kolába.

155. The yield of teak trees increased from 575,600 cubic feet in 1890-91 to 613,730 cubic feet in 1891-92, and of teak beams from 75,000 to 101,097 cubic feet. But there was a small decrease in the quantity of firewood, which was 116,254 cubic feet and 113,411 cubic feet, respectively, for 1890-91 and 1891-92.

Ratnágiri.

156. Here also the yield of teak rose from 122,502 cubic feet in 1890-91 to 128,575 cubic feet in 1891-92; and of firewood, from 45 to 24,800 cubic feet.

CHAPTER V.

FINANCIAL RESULTS.

157. The details of the year's transactions are shown in the statements 58 to 62 appended.

158. The receipts and expenditure of the Southern Circle for the years 1890-91 and 1891-92 were:—

Year.	Receipts.	Charges.			Surplus or net Revenue.
		A. Conservancy and Works.	B. Establishments.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.
1890-91	13,49,826	4,38,426	2,66,529	7,04,955	6,44,871
1891-92	11,47,707	4,37,415	2,67,816	7,05,231	4,42,476

159. The falling off in the revenue of the year under report occurs in all the divisions except Kolába-Ratnágiri, and it is largely ascribable to a want of demand for, and consequent failure in the sales of, timber on account of the scarcity prevailing in the plain districts. There was also a decrease in the revenue from fuel supplied to the Southern Marátha Railway Company. The reduction in traffic and consequent reduction of requirements in fuel by the Railway was to a large extent answerable for the fall in the receipts.

160. The following shows the revenue and outstandings at the end of the year:—

Year.	Amount realized.	Balance due to the Department at the end of the year.
	Rs.	Rs.
1890-91	13,49,826	1,98,184
1891-92	11,47,707	1,70,206

161. The following statement shows the receipts and expenditure for the two years under main heads:—

Heads of Revenue and Charges.	1890-91.	1891-92.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
RECEIPTS.				
I.—Timber and other produce removed from forests by Government agency	9,52,184	7,42,283	...	2,09,901
II.—Timber and other produce removed from the forests by consumers or purchasers...	3,88,390	3,87,984	...	406
III.—Confiscated drift and waif-wood ...	2,003	8,169	6,166	...
IV.—Revenue from forests not managed by Government	11	279	268	...
V.—Miscellaneous	7,238	8,992	1,754	...
Total ...	13,49,826	11,47,707	8,188	2,10,307
CHARGES.				
A.—Conservancy and Works.				
I.—Timber and other produce removed from forests by Government agency	3,31,634	3,14,107	...	17,527
II.—Timber and other produce removed from forests by consumers or purchasers	6,911	7,971	1,060	...
III.—Confiscated drift and waif-wood ...	76	99	23	...
V.—Rent of leased forests and payments to share-holders in forests managed by Government ...	12,436	5,752	...	6,684
VI.—Live-stock, stores, tools and plant...	803	15,510	14,707	...
VII.—Communications and buildings ...	6,130	6,809	679	...
VIII.—Demarcation, improvement and extension of forests	74,482	81,583	7,101	...
IX.—Miscellaneous	5,954	5,584	...	370
Total A. ...	4,38,426	4,37,415	23,570	24,581
B.—Establishments.				
I.—Salaries	2,17,876	2,23,047	5,171	...
II.—Travelling allowances	33,040	34,021	981	...
III.—Contingencies	15,613	10,748	...	4,865
Total B. ...	2,66,529	2,67,816	6,152	4,865
Total Charges A. and B. ...	7,04,955	7,05,231	29,722	29,446

162. The receipts show decreases under the main heads I and II, and increases under the other heads. The decrease under II amounts only to Rs. 406.

I.—Timber, &c., removed by Government Agency.

163. The decrease under this head is met with as follows:—Rs. 1,76,439 under "*a*, Timber," Rs. 29,597 under "*b*, Firewood," and Rs. 7,032 under "*d*, Sandalwood."

164. In the Northern Division of Kánara alone the decrease in the revenue from *timber* amounted to Rs. 1,20,468. There was a diminution in the demand in the Haliyál auction sales, where only about 93,000 cubic feet were sold during the year against 143,695 cubic feet in the year before, and the rate obtained per 100 cubic feet was Rs. 120 against Rs. 142.

165. The scarcity is, no doubt, to a considerable extent, the cause of this decrease but not altogether.

166. The fellings for last season's sales were much larger than usual. From the data collected by the Working Plans Branch, Mr. MacGregor concluded that the exploitation of past years had been much below the possibility. He decided, therefore, (this office letter No. 4399 of 27th January 1890) to increase the outturn, although doing so would necessarily reduce sale prices. He argued that it was better to fell and sell more timber so long as the *net* return was maintained and the possibility not exceeded, although it had to be done at a much lower price. Such a policy is, of course, the proper one where Government owns the forest, for without reducing the net revenue, a larger supply of timber is made available to the people. Unfortunately, this new departure synchronized with a year of bad rainfall and scarcity, so that the demand for wood even at the minimum price fell far short of expectations resulting in a very seriously reduced revenue. It must be remembered, however, that the depôts are now fuller of timber than they have ever been, a large proportion of which is teak and practically imperishable.

167. Besides the fall in the sale-price of teak due to temporary local causes recorded above, Mr. MacGregor notes that there is also a general fall of 25 per cent. or more in prices in Europe and Bombay, which, of course, affects local prices. This fall Mr. MacGregor attributes principally to excessive yield from the Burma forests, and he expects that no recovery is to be looked for until the Burma yield falls off, which it may be expected to do as the Bombay-Burma Trading Company's leases fall in.

168. The decrease in Central (25,664) and Southern Kánara (9,667) and in Belgaum (2,639) and Dhárwár (22,766) aggregated Rs. 60,736. This was, no doubt, due to the prevailing distress in the plain country, while, the receipts in Kolába-Ratnágiri show an increase of Rs. 4,774.

169. Under "*b*, Firewood", the year's receipts in Belgaum show a decrease of Rs. 27,967, as compared with those of the previous year. This is attributable to slackness in railway traffic and consequent reduction in the fuel supply.

170. On the other hand, the revenue under "*c*, Grass and other minor produce" was Rs. 3,138 more than in 1890-91, which is due to a better crop of myrobollams in Northern Kánara.

II.—Timber, &c., removed by Consumers or Purchasers.

171. The actuals of the year under "*a*, Timber" show a decrease of Rs. 4,943, as compared with the revenue for 1890-91. But the receipts in Kolába-Ratnágiri show an increase of Rs. 15,167, while, decreases aggregating Rs. 20,110 occur in Northern (Rs. 6,257), Central (Rs. 7,179) and Southern Kánara (Rs. 1,342) and in Belgaum (Rs. 4,072), Dhárwár (Rs. 592) and Bijápur (Rs. 668). The falling off in Northern Kánara is ascribed chiefly to a decreased demand for export-timber in Kárwár, where the quantity removed was less by 10,133 cubic feet, as also to large fellings of junglewood in rayats' survey numbers; and in Belgaum to the fact that few trees were found fit for timber in the fuel cuttings. In Central Kánara a certain contractor had carried on unauthorized fellings under the cloak of his contract, and therefore his wood was confiscated and sold by Government, which caused a decrease under "*a*, Timber" and swelled the receipts under the Head III.

172. Under "*b*, Firewood" there is an increase of Rs. 6,208 in the Central Division of Kánara and Rs. 2,082 in Belgaum, while the receipts of Northern Kánara, Kolába-Ratnágiri and Bijápur show a decrease of Rs. 8,149, Rs. 2,549 and Rs. 1,277, respectively. In the Ankola Range there was a better demand for export-firewood, and in Khánápur for refuse-wood from railway fuel-cuttings, hence the increase noted above; but the demand for fuel from Kárwár was not brisk, and this accounts for the decrease in Northern Kánara.

173. There was a falling off of Rs. 4,718 in the receipts under "*c*, Bamboos" which occurs mainly in Northern (Rs. 3,521), and in Central Kánara (Rs. 2,041), and is attributable to a decreased demand for bamboos noted in the

preceding chapter. On the other hand, "*d*, Grazing and fodder grass" shows an increase of Rs. 18,678 for the reasons explained in paragraph 87. But "*e*, Other minor produce" shows a decrease of Rs. 5,934, which is due in Northern Kánara (3,001) and Belgaum (Rs. 2,291) to a bad crop of *Shigékái* and other minor products.

EXPENDITURE.

A.—Conservancy and Works.

174. The increase under VI is due to the purchase of cattle and carts in the Central Division of Kánara (Government Resolution No. 5147 of 22nd June 1892). That under "VIII *b*" (Rs. 1,217) is due to acquisition of land for forests in Belgaum and Southern Division of Kánara; and under "VIII *c*" (Rs. 3,073) and *e* (Rs. 3,975) to charges connected with topographical survey in Kolába and to expenditure on fire-protection in the Northern Division of Kánara.

B.—Establishments.

175. Increase under "I, Salaries" is met with chiefly as follows :—Rs. 1,483 under "*b*, Superior officers" and Rs. 2,488 under "*c*, Subordinate forest and depôt establishments." This is ascribable (*a*) to a new Forest Officer having been posted to the Southern Circle as well as to promotions of other officers, and (*b*) to the transfer of establishment of the Karjat and Khálápur Ranges from the Northern to this Circle.

176. The following shows the value calculated at seigniorage rates of the forest produce granted free :—

Division.	1890-91.					1891-92.				
	Timber—Cubic feet.	Bamboos of sorts.	Canes—Head-loads.	Fire-wood—Cubic feet.	Value.	Timber—Cubic feet.	Bamboos of sorts.	Canes—Head-loads.	Fire-wood—Cubic feet.	Value.
		No.			Rs. a. p.		No.			Rs. a. p.
Northern Division of Kánara	18,448	9,460	..	823	3,225 14 11	11,689	5,350	..	1,813	2,820 12 2
Central Division of Kánara	20,658	2,100	10	180	4,283 8 11	29,562	6,150	8	..	5,561 13 11
Southern Division of Kánara	22,910	650	..	..	4,510 2 7	16,238	3,000	.. 11	..	3,771 1 9
Belgaum	2,119	155	..	..	434 15 11	768	..	..	..	184 5 8
Dhárwár	1,145	350	..	..	633 0 0	239	..	..	..	130 6 0
Bijápur	..	..	..	..	..	..	..	..	..	....
Kolába	7,720	..	..	..	670 0 0	16,660	..	..	..	1,324 0 0
Ratnágiri	..	..	..	..	..	..	..	..	..	....
Total ..	73,000	12,705	10	1,005	13,787 10 4	75,156	14,500	19	1,813	13,792 7 6

CHAPTER VI.

GENERAL REMARKS.

TOUR OF INSPECTION.

177. On the 1st April Mr. MacGregor was at Bomanhalli in the Kánara District, where he met Mr. Bell and the officers serving under him in the Working Plan Division.

178. On the 3rd he reached Supa in the Northern Division of Kánara, where in company with the Divisional Officer he met His Excellency the Governor. On the 13th he proceeded to Yellápur, Tátwhál, Sámbráni, Zálali, Kumbhárváda, Sámjoida and Astoli, which last was reached on the 21st May, and next day he went into head-quarters for the rains.

179. On November 15th he left Belgaum for the Bijápur Division, marching *viâ* Márihál, Halki, Panchgaon and Lokápur to Kaládgi. On the 28th he reached Katgeri. He found the reserves of the Bágalkot and Bádámi Tálukas devoid of grass and great scarcity of fodder and water in most parts of the country, but the forests presented their usual appearance at that season and did not seem to be in any way affected by the drought.

180. From Katgeri he went to Bijápur for the inspection of the Divisional Office and there met Mr. Ryan. From Bijápur he returned to Katgeri and marched thence to Manoli in the Parasgad Táluka of the Belgaum Division,

where he arrived on the 14th December. From Manoli he proceeded *viâ* Huli, Saundatti, Betgeri, Bidi and Mantargi, to Hemadgé in the Belgaum District, which he reached on the 24th December. During his tour through the Parasgad forests he noticed that "the number of goats grazed is apparently as great as ever, although the fee charged has been quadrupled (it has been raised from half to two annas). Improvement in the condition of the Parasgad forests is, of course, impossible as long as they are infested by these pests." One individual is reported to have paid as much as Rs. 90 on account of grazing fees on goats and another is said to own 1,500 goats!! It should be recorded that these forests are at present "Protected". The final report regarding their conversion into "Reserved" is before Government. When they become "Reserved" the grazing regulations will come into force and goat grazing can then be controlled.

181. Christmas was spent at Hemadgé and thence he started for Belgaum which was reached on the 8th January.

182. The camp was despatched by goods train to Karjat, which it reached on 17th, and Mr. MacGregor rejoined it there two days later. From Karjat he marched through the Khálápur and Panvel Ranges to Panvel which he reached on the 27th January. Thence he proceeded *viâ* Kalhé and Pen (where he met the Divisional Forest Officer) to Alibág, returning *viâ* Bombay to Belgaum on the 8th February.

183. On the 17th he reached Mugutkhán-Hubli in the Belgaum District and marched thence *viâ* Dhárwár and Hubli to Tadas in the Dhárwár District. From Tadas he went to Kátur, Bhartanhalli, Sirsi, Sonda (where he met the Divisional Forest Officer, Southern Division of Kánara), Bilki, Manchikeri and Yellápur, reaching this last place on the 24th March. At Yellápur he met the Divisional Forest Officer, Kánara Central Division, and remained there until the end of the year.

184. *Working Plans.*—Although signing this report, I did not receive charge of the Circle until after the close of the year to which it refers. The remarks recorded under the heading "Natural Reproduction" seem to me to be of sufficient importance, however, to require special notice. All that I saw during the short tour I was able to make before the rains commenced and all I have heard, point to the conclusion that under the present system teak reproduction is not assured. Under "Artificial Reproduction" certain measures to compensate for this failure are recorded, but on the large scale on which exploitation is carried on in Kánara any such quasi-horticultural makeshifts can never be sufficient. Under the thickest cover teak will germinate; but I think sufficient is recorded from the reports of Divisional Officers under "Natural Reproduction" to warrant, irrespective of theory, the belief that the present system of unregulated *jardinage* is answerable to a considerable extent for the failure of teak reproduction, for the cover is not sufficiently broken to allow the germinated seedlings to live and grow. Again, Mr. MacGregor records that the *data* collected by the Working Plans Branch have encouraged him to extend working and increase the annual outturn. But with even a thorough knowledge of the jungles it must always be a guess to what extent *data* collected in one forest are of universal application. For these reasons one of the most urgent, if not the most urgent, question in connection with forest administration in the Southern Circle is that of Working Plans. It is to be regretted, therefore, that owing to a paucity of trained officers the two Working Plan Parties during the past year have been working under one officer, consequently the collection of the more important data, which work can only be entrusted to a trained officer, has not made the progress it should. It is to be hoped that in the coming season it will be possible to spare another trained officer of experience, so that this most important work of preparing Working Plans may be pushed on vigorously to completion.

185. *Forest Settlement.*—Another branch of work vitally connected with the above has also made less progress than could be wished. I allude to forest settlement. This poor result is also due to the paucity of officers available, for though a second Settlement Officer for Kánara was asked for, Government was

unable to comply with the request, there being no one available to take up the work. If the preparation of Working Plans is an urgent necessity, Forest Settlement is so *a fortiori*, in that it should precede the other. But, irrespective of this, the actual conservation of the forests from destruction depends largely on their early settlement. In many parts of Kánara, wherever the system of agriculture causes a demand for "Soppu" or tree-loppings, cultivators, as reported by the Divisional Officers, lop at their pleasure not only brushwood, &c., but even reserved trees, and the Magistrates, in view of the claim to prescriptive right raised by the accused, refuse to punish. It is true that Government in their Resolution No. 7844 of 3rd October 1884, direct that Forest Officers should "prevent the exercise by the rayats of asserted rights of which Government deny the existence, leaving the claimants to sue Government in order to establish their claims"; but unfortunately this is not practically possible. A guard may prevent any one cultivator from lopping indiscriminately for a certain time, but the moment the guard's back is turned the man may and does recommence the work of destruction, practically without fear of punishment. It is to be hoped, therefore, that it will be found practicable to appoint a second officer during the coming season, for at the present rate the completion of the forest settlement of Kánara cannot be hoped for under 5 or 6 years.

186. *Rules for Protected Forests.*—The want of rules under Section 31 of the Indian Forest Act, mentioned in last year's report, is still badly felt. As Government, however, have taken up this matter since the close of the year under report, no more need be said here.

187. *Services of Officers.*—In the absence of a special note by Mr. MacGregor, I may safely record that all officers of the Circle have done their duty heartily and successfully.

188. The same may be said of the office establishment. Mr. Dattatraya Manjunath Bijur, Head Clerk in the Conservator's office, has since the close of the year obtained his promotion to the grade of Extra Assistant Conservator.

189. I give below the names of executive officers who are reported by Divisional Officers to be worthy of special commendation :—

Mr. Sheshu Manjo, Extra Assistant Conservator.
Mr. Babaji Jotiba, Range Officer, Bádámi.
Mr. Abdul Rauf, Forest Ranger, Bankápur.
Mr. W. S. Palekar, Range Officer, Dhárwár.
Mr. Narsing Tirmal, Range Officer, Kod.
Mr. Ghose Khan, Forest Ranger, Supa.
Mr. G. J. Rege, Forest Ranger, Khánápur.
Mr. Hasan valad Mohodin, Forester.
Mr. Mangesh Nagapa, Forest Ranger, Yellápur.
Mr. Mahableshvar Nagapa, Forest Ranger, Mundgod.

R. C. WROUGHTON,
Acting Conservator of Forests, S. C.

Belgaum, 15th September 1892.

LIST OF STATEMENTS ACCOMPANYING THE FOREST ADMINISTRATION REPORT OF THE CONSERVATOR OF FORESTS, SOUTHERN CIRCLE, FOR 1891-92.

Form No. 49	Area of Reserved Forests, 1891-92.
„ „ 49A	Area of Protected Forests, 1891-92.
„ „ 50	Prosecution for breaches of Forest Rules during 1891-92.
„ „ 50A	Statement showing the number of cases of misappropriation of minor produce of the several Divisions of the Southern Circle for the year 1891-92.
„ „ 50B	Statement showing the number of cases in which fines amounting to one rupee, two rupees and so on, up to the maximum, were inflicted during 1891-92.
„ „ 51	Area of Forest tracts protected from fire during the dry season of 1892.
„ „ 52	Area of Plantations, 1891-92.
„ „ 54	Outturn of Timber and Fuel, 1891-92.
„ „ 55	Outturn of Minor Forest Produce, 1891-92.
„ „ 56	Account of Timber and other Produce cut or collected by Government agency and brought to Sale Depôts or sold locally during the year 1891-92.
„ „ 57	Abstract showing the value of Timber and other produce at Sale Depôts for the year 1891-92.
„ „ 57A	Abstract showing the value of Dead Stock for the year 1891-92.
„ „ 58	Summary of Revenue and Expenditure of the different Divisions during the year 1891-92.
„ „ 59	Account current for the year 1891-92.
„ „ 60	Revenue received and Outstandings on account of Revenue during 1891-92.
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„ „ 62	Financial Results of the year 1891-92.

R. C. WROUGHTON,
Conservator of Forests, S. C.

ANNUAL FORM No. 49.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Area of Reserved Forests, 1891-92.

Division or Range.	Civil District or Territory.	Name of Forest.	AREA ON 1ST APRIL 1891.		ADDED DURING THE YEAR.	EXCLUDED OR TRANSFERRED TO OTHER HEADS.	AREA ON 31ST MARCH 1892.		Number and date of Notification of addition or transfer.	REMARKS.
			Acres.	Equivalent in Square Miles.	Acres.	Acres.	Acres.	Equivalent in Square Miles.		
1. Northern Division of Kánara.	Kánara ...	Haliyál and Kárwár	298,425	466	...	...	298,425	466		
2. Central Division of Kánara.	Kánara ...	Mundgod, Ankola and Kumta...	117,944$\frac{4}{5}$	184	...	...	117,944$\frac{4}{5}$	184		
3. Southern Division of Kánara.	Kánara ...	Sirsi and Honávar	57,578$\frac{1}{5}$	90	8,691$\frac{5}{40}$	...	66,269$\frac{13}{40}$	104	No. 3083 of 29th March 1892.	
4. Belgaum Division.	Belgaum ..	Khánápur, Gokák, Belgaum, Sampgaon, Chikodi, and Athni.	316,576$\frac{7}{10}$	495	...	55	316,521$\frac{7}{10}$	495	No. 4561 of 6th July 1891 and 390 of 19th January 1892.	
5. Dhárwár Division.	Dhárwár ...	Dhárwár, Kalghatgi, Hángal, Bankápur, Kod, Gadag, Ron, Nargund, Hubli and Ránebennur.	109,850$\frac{3}{40}$	172	...	...	109,850$\frac{3}{40}$	172		
6. Bijápur Division.	Bijápur ..	Bádámi, Hungund, Bijápur, Bágevádi, Muddebihál and Indi.	99,275$\frac{3}{40}$	155	...	...	99,275$\frac{3}{40}$	155		
7. Kolába Division.	Kolába ...	Alíbág, Panvel, Pen, Roha, Mahád, Mángaon, Karjat and Khálápur.	195,797$\frac{9}{20}$	306	* 40,967 +9,114	... +1,752	244,126$\frac{9}{20}$	381	No. 3039 D of 4th May 1891 and 4561 A of 6th July 1891.	
8. Ratnágiri Division.	Ratnágiri ...	Dápoli, Khed, Rájápur, Chiplún, Sangameshwar, Ratnágiri, Devgad and Málvan.	12,879$\frac{4}{5}$	20	...	...	12,879$\frac{4}{5}$	20		
		Total ...	1,208,327$\frac{1}{10}$	1,888	58,772$\frac{5}{40}$	1,807	1,265,292$\frac{9}{40}$	1,977		

* Area of Karjat and Khálápur ranges transferred from the Northern to the Southern Circle.

Belgaum, 27th August 1892.

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

ANNUAL FORM No. 49A.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Area of Protected Forests, 1891-92.

Division or Range.	Civil District or Territory.	Name of Forest.	AREA ON 1ST APRIL 1891.		ADDED DURING THE YEAR.	EXCLUDED OR TRANSFERRED TO OTHER HEADS.	AREA ON 31ST MARCH 1892.		Number and date of Notification of addition or transfer.	REMARKS.
			Acres.	Equivalent in Square Miles.	Acres.	Acres.	Acres.	Equivalent in Square Miles.		
1. Northern Division of Kánara.	Kánara ...	Supa	462,476	722	...	...	462,476	722		
2. Central Division of Kánara.	Kánara ...	Mundgod, Kumta, Yellápur and Ankola.	$567,480\frac{23}{40}$	887	...	$8\frac{34}{40}$	$567,471\frac{29}{40}$	887	No. 4812 of 16th July 1891.	Disforested.
3. Southern Division of Kánara.	Kánara ...	Siddápur, Honávar, Sirsi and Bhatkal.	$766,620\frac{3}{20}$	1,198	...	$8,691\frac{5}{40}$	$757,929\frac{1}{40}$	1,184	No. 3083 of 29th March 1892.	Transferred to Reserved Forests.
4. Belgaum Division.	Belgaum ...	Belgaum, Chikodi, Gokák and Parasgad.	$126,011\frac{33}{40}$	197	...	...	$126,011\frac{33}{40}$	197		
5. Dhárwár Division.	Dhárwár ...	Dhárwár, Kalghatgi, Bankápur, Kod, Hángal, Gadag, Ránebennur, Hubli and Karajgi.	166,658	260	...	...	166,658	260		Actual area under management of the Forest Department. This was not included in last year's return.
6. Bijápur Division.	Bijápur ...	Bágalkot, Hungund, Bijápur, Bágevádi and Indi.	57,369	90	...	...	57,369	90	.....	
7. Kolába Division.	Kolába ...	Alíbág, Panvel, Pen, Roha, Mahád, Mángaon, Nágothna, Karjat and Khálápur.	$37,049\frac{2}{5}$	58	4,958*	1,105	$40,902\frac{2}{5}$	64	No. 3039B of 4th May 1891.	Disforested.
		Total ...	$2,183,664\frac{19}{20}$	3,412	4,958	$9,804\frac{39}{40}$	$2,178,817\frac{39}{40}$	3,404		

* Area of Karjat and Khálápur ranges transferred from the Northern to the Southern Circle.

Belgaum, 27th August 1892.

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

ANNUAL FORM No. 50.

Forest Department, Bombay, Southern Circle.

Prosecutions for breaches of Forest Rules during 1891-92.

Forest Division and Civil District.	Cases pending from 1890-91.	New Cases of the Year.					Total cases.	Disposed of during the Year.						Cases pending at close of year.
		Injury to Forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Northern Division of Kánara. A	...	3	15	...	3	21	21	10	29	11	11	21	40	...
B	...	...	8	...	...	8	8	8	16	...	...	8	16	...
C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	3	23	...	3	29	29	18	45	11	11	29	56	...
Central Division of Kánara. A	...	3	17	...	...	20	20	16	19	4	4	20	23	...
B	...	2	59	...	...	61	61	60	74	1	1	61	75	...
C	...	1	5	...	...	6	6	...	...	...	...	...	...	...
Total	...	6	81	...	...	87	87	76	93	5	5	81	98	...
Southern Division of Kánara. A	1	...	103	...	...	103	104	5	6	2	12	7	18	97
B	...	...	45	...	...	45	45	45	63	...	...	45	63	...
C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	1	...	148	...	...	148	149	50	69	2	12	52	81	97
Belgaum Division ... A	4	1	23	11	1	36	40	27	60	12	31	39	91	1
B	...	...	174	17	19	210	210	210	210	...	...	210	210	...
C	...	...	28	...	...	28	28	...	...	...	...	...	...	...
Total	4	1	225	28	20	274	278	237	270	12	31	249	301	1
Dhárwár Division ... A	...	...	7	...	...	7	7	6	11	1	1	7	12	...
B	...	...	65	...	...	65	65	65	196	...	...	65	196	...
C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	...	...	72	...	...	72	72	71	207	1	1	72	208	...

Bijápur Division	A	...	1	...	6	2	...	8	9	8	34	...	...	8	34	1
	B	...	...	...	47	2	...	49	49	49	214	...	...	49	214	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total	...	1	...	53	4	...	57	58	57	248	...	...	57	248	1
Kolába-Ratnágiri Division.	A	...	5	...	142	2	7	151	156	124	396	26	96	150	492	6
	B	...	...	4	342	2	18	366	366	366	2,582	...	...	366	2,582	...
	C	...	...	...	6	...	9	15	15	...	...	...	...	...	...	...
	Total	...	5	4	490	4	34	532	537	490	2,978	26	96	516	3,074	6
Grand Total	A	...	11	7	313	15	11	346	357	196	555	56	155	252	710	105
	B	...	...	6	740	21	37	804	804	803	3,355	1	1	804	3,356	...
	C	...	...	1	39	...	9	49	49	...	...	...	...	...	...	...

A. Means cases taken into Court.
B. Means cases disposed of under Section 67 of the Indian Forest Act.
C. Means undetected cases.

Belgaum, 27th August 1892.

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

ANNUAL FORM No. 50 A.

FOREST DEPARTMENT, SOUTHERN CIRCLE, BOMBAY.

Statement showing the Number of Cases of misappropriation of minor produce of the several Districts of the Southern Circle for the years 1890-91 and 1891-92.

Division.	NUMBER OF CASES OF MISAPPROPRIATION OF																						Total cases of misappropriation.		Remarks.
	Timber.		Fire Wood.		Minor Produce.																				
					Leaves.		Stones, earth and minerals.		Cinnamon, matti, kaki and bábul barks.		Tarwad bark.		Canes.		Harda.		Honey.		Bábul pods.		Cinnamon.		Total.				
	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	
Northern Division, Kánara	31	23	..	..	..	..	..	..	..	..	..	..	2	3	..	..	..	..	..	..	..	..	2	3	33	20	
Central Division, Kánara	15	29	..	..	*42	*47	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	43	47	58	76	
Southern Division, Kánara, ...	50	34	2	5	*60	*109	..	..	..	..	..	..	1	..	..	..	2	..	..	..	1	..	64	109	116	143	
Belgaum Division	54	33	214	148	2	3	7	5	..	..	1	..	..	..	3	8	..	..	..	..	..	..	13	16	311	197	
Dhárwár do.	40	47	24	19	..	1	2	3	..	..	..	..	..	..	..	..	..	..	..	1	..	..	2	5	66	71	
Bijápur do.	..	..	73	48	..	2	5	2	..	1	1	..	..	..	..	..	..	..	..	..	..	..	6	5	79	53	
Kolába do.	207	272	..	..	..	..	..	2	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	3	207	275	
Ratnágiri do.	131	118	..	..	†9	†91	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	11	91	142	269	
Total ..	528	556	343	220	113	253	16	12	1	1	2	..	3	3	3	9	2	..	..	1	1	..	141	279	1,013	1,055	

* These cases were for illicit lopping of trees for *Soppu* or *rab* by cultivators of *Supári* gardens.
† Leaves for *rab*.

Belgaum, 27th August 1892.

R. C. WROUGHTON,
Conservator of Forests, S. C.

Statement showing the number of cases in which fines amounting to one rupee, two rupees and so on up to the maximum were respectively inflicted during 1891-92.

Divisions.	Number of fines inflicted.																																	Total.	
	Rupee 1 and under.	Rupees 2 and under.	Rupees 3 and under.	Rupees 4 and under.	Rupees 5 and under.	Rupees 6 and under.	Rupees 7 and under.	Rupees 8 and under.	Rupees 9 and under.	Rupees 10 and under.	Rupees 11 and under.	Rupees 12 and under.	Rupees 13 and under.	Rupees 14 and under.	Rupees 15 and under.	Rupees 16 and under.	Rupees 17 and under.	Rupees 18 and under.	Rupees 19 and under.	Rupees 20 and under.	Rupees 21 and under.	Rupees 22 and under.	Rupees 23 and under.	Rupees 24 and under.	Rupees 25 and under.	Rupees 26 and under.	Rupees 27 and under.	Rupees 28 and under.	Rupees 29 and under.	Rupees 30 and under.	Rupees 31 and under.	Rupees 33 and under.	Rupees 91 and under.	Number.	Amount.
																																			Rs.
Northern Division of Kánara ...	1	1	1	1	..	..	1	..	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	49
Central Division of Kánara ...	38	4	1	1	4	1	2	1	1	1	1	2	..	1	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	60	197
Southern Division of Kánara ...	10	7	9	3	1	2	2	2	1	2	1	..	..	..	2	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	1	45	91
Belgaum Division	158	15	4	2	4	11	2	4	1	1	..	6	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	210	351
Dhárwár Division	32	10	6	5	3	1	1	..	..	4	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	65	130
Bijápur Division	34	8	2	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1	..	49	215
Kolába-Ratnágiri Division ...	154	53	35	37	17	14	5	10	5	4	1	1	5	5	2	4	..	1	1	1	2	1	..	..	..	1	..	1	1	..	1	1	3	366	1,133
Total ..	427	98	58	49	29	30	13	17	9	12	3	10	7	8	5	4	1	1	2	2	3	1	1	..	1	1	..	2	1	..	2	2	4	803	2,216

Belgaum, 27th August 1892.

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

FORM No. 51.

Forest Department, Bombay, Southern Circle.

Area of Forest Tracts protected from Fire during the Dry Season of 1892 to accompany Annual Report for 1891-92.

Division.	Forest Tracts.	Year in which protection commenced.	Area actually protected up to 15th June 1891.	During the Dry Season of 1892.			Cost during the Season.	Remarks.
				Area attempted to be protected.	Failures.	Actually protected.		
			Acres.	Acres.	Acres.	Acres.	Rs.	
Northern Division of Kánara.	Haliyál Range Forests	1887-88	128,226$\frac{7}{8}$*	159,382	2,107	157,275	4,877	*36,092 acres of the Supa Range, which were included in the Haliyál Range last year, are included in the Supa Range this year.
	Kárwár do.	,,	13,114	14,185	50	14,135	446	
	Supa do.	1888-89	196,428*	196,434	90	196,344	5,536	
	Total	...	337,768$\frac{7}{8}$	370,001	2,247	367,754	10,859	
Central Division of Kánara.	Yellápur Range Forests	1888-89	43,572	61,822	525	61,297	2,125	
	Mundgod do.	,,	33,074	36,890	2,919	33,971	1,010	
	Ankola do.	,,	.....	5,333	480	4,853	174	
	Total	...	76,646	104,045	3,924	100,121	3,309	
Southern Division of Kánara.	Sirsi Range Forests	1887-88	80,064	29,437	5,814	23,623	214	
Belgaum Division.	Chikodi Range Forests	1883-84	895	800	.....	800	67	
	Khánápur do.	1884-85	69,969	72,734	1,558	71,176	1,151	
	Belgaum do.	1886-87	10,600	23,562	705	22,857	110	
	Gokák-Sampgaon Forests	1887-88	16,729	14,466	0—20	14,465-20	107	
	Total	...	98,193	111,562	2,263—20	109,298-20	1,435	
Dhárwár Division.	Dhárwár Range Forests	1888-89	2,261	2,599	.....	2,599	135	
	Kalghatgi do.	,,	7,699	6,965	1,175	5,790	168	
	Bankápur do.	,,	5,489	5,195	8	5,187	112	
	Hángal do.	,,	4,086	4,582	136	4,446	79	
	Kod do.	,,	9,749	9,799	2	9,797	46	
	Gadag do.	,,	6,277	6,480	.....	6,480	17	
	Total	...	35,561	35,620	1,321	34,299	557	
Bijápur Division.	Bádámi Range Forests	1889-90	19,200	...	.....	.....	...	No special measures were taken to protect the forests from fires.
	Bágalkot do.	1889-90	21,760	...	.....	.....	...	
	Total	...	40,960	...	.....	.....	...	
Kolába-Ratnágiri Division.	Dápoli Range Forests	1889-90	2,815$\frac{17}{20}$	...	.....	.....	...	
	Málvan do.	,,	173	...	.....	.....	...	
	Khálápur do.	1887-88	19,407	19,407	774	18,633	105	
	Total	...	22,395$\frac{17}{20}$	19,407	774	18,633	105	
	Grand Total	...	†691,587$\frac{19}{20}$	670,072	16,343$\frac{19}{20}$	653,728$\frac{19}{20}$	16,479	†The area actually protected as shown in Form No. 51 for 1890-91 was 672, 181$\frac{13}{20}$. The difference is owing to an addition of 19,407 acres in the Khálápur range transferred during 1891-92 from the Northern to the Southern Circle.

R. C. WROUGTON,
Conservator of Forests, Southern Circle.

Belgaum, 27th August 1892.

FORM No. 52.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Area of Plantations, 1891-92.

Division.	Name of Plantation.	Area in Acres. On 1st April 1891.	Added during the year.	Excluded during the year.	Area on 31st March 1892.	Receipts Charges Of the year.		Remarks.
	Regular Plantations.	A. g.	A. g.		A. g.	Rs.	Rs.	
Northern Division of Kánara.	Kadra	357 0	...	...	357 0	...	401	
	Mardi	110 0	...	...	110 0	...	214	
	Sulgeri	110 0	...	...	110 0	...	240	
	Kárwár	123 0	...	...	123 0	848	118	
	Bingi	20 0	...	...	20 0			
	Arge	30 0	6 0	...	36 0	...	640	
	Barchi	221 0	...	...	221 0	...	...	
	Singatgeri	83 0	...	...	83 0	...	...	
	Bomanhalli	200 0	...	...	200 0	...	...	
Central Division of Kánara.	Devarbail	21 0	...	...	21 0	...	...	
	Arbail	5 0	...	...	5 0	10	20	
Southern Division of Kánara.	Kasarkod	298 0	...	...	298 0	...	57	
Belgaum Division ...	Kalasgade	13 0	...	...	13 0	...	1	
	Linganmat	16 0	...	...	16 0	...	...	
	Deshnur	150 0	6 0	...	156 0	...	32	
Dhárwár Division ...	Kelgeri	21 0	...	...	21 0	...	...	
	Kambarganvi	25 0	...	...	25 0	364 0	115	
	Devikop	29 0	...	...	29 0	...	19	
	Kalkundi	275 0	...	...	275 0	...	96	
	Hirur	12 0	...	...	12 0	...	19	
Bijápur Division ...	Mamdápur	174 0	...	...	174 0	...	...	
	Anantpur.	90 0	...	...	90 0	...	...	
	Shivapur	12 0	...	...	12 0	...	...	
Kolába-Ratnágiri Division.	Rámdharni	50 0	...	...	50 0	...	...	
	Rájwádi	12 0	...	...	12 0	...	...	
	Chochi	2 0	4 0	...	6 0	...	34	
	Nerle	3 0	...	...	3 0	...	2	
	Bhaliwádi	13 0	...	...	13 0	...	...	
	Borgáon	1 0	5 0	...	6 0	...	5	
	Kharvandi Kudore ...	2 0	...	...	2 0	...	...	
	Khadve	2 0	...	...	2 0	...	...	
	Beed	1 0	...	...	1 0	...	...	
	Palaspuri	...	1 0	...	1 0	...	11	
	Sugve	...	1 0	...	1 0	...	6	
	Puli	...	1 0	...	1 0	...	3	
	Savali	...	10 0	...	10 0	...	4	
	Paturne	...	1 0	...	1 0	...	6	
	Ambivli	...	1 0	...	1 0	...	8	
	Adosi	97 0	...	...	97 0	...	...	
	Lavji	71 0	...	...	71 0	...	...	
	Oobarvira	15 0	...	...	15 0	...	...	
	Jambrug	58 0	5 0	...	63 0	...	16	
	Sungde	62 0	6 0	...	68 0	...	17	
	Khopoli	39 0	6 0	...	45 0	...	16	
	Bhanvaji	86 0	...	...	86 0	...	...	
	Nowse	30 0	2 0	...	32 0	...	...	
	Honad	20 0	...	...	20 0	...	...	
	Kumboli	46 0	...	...	46 0	...	...	
	Kharsundi	32 0	6 0	...	38 0	...	30	
	Vanaosal	2 0	...	...	2 0	...	...	
	Bhilaoli	37 0	...	...	37 0	...	...	
	Kalothe Mokasi	53 0	...	...	53 0	...	...	
	Mandop	41 0	...	...	41 0	...	...	
	Vinegaon	3 0	...	...	3 0	...	...	
	Kalothe Rayate	7 0	...	...	7 0	...	...	
	Nudao	2 0	...	...	2 0	...	...	
	Nigdoli	1 0	...	...	1 0	...	...	
	Dhamni	2 0	...	...	2 0	...	...	
	Vadgaon	33 0	5 0	...	38 0	...	25	
	Kansoli	8 0	...	...	8 0	...	...	
	Nodhel	24 0	...	...	24 0	...	...	
	Loniwali	1 0	...	...	1 0	...	...	
	Vaverle	11 0	...	...	11 0	...	...	
	Pali Budruk	9 0	...	...	9 0	...	...	
	Vadviheer	5 0	1 0	...	6 0	...	7	
	Manivli Manawli	13 0	...	...	13 0	...	...	
	Varse	320 0	3 0	...	323 0	...	124	
	Borgaon Khurd	116 0	3 0	...	119 0	...	22	
	Sudewádi	190 0	...	...	190 0	...	...	
	Khálápur	3 0	...	...	3 0	...	...	
	Ghodiaoli	...	7 0	...	7 0	...	54	
	Dápoli	75 0	6 0	...	81 0	...	64	
	Total, Regular Plantations...	*3,993 0	86 0	...	4,079 0	1,222	2,426	

*The difference is owing to inclusion of the area of Karjat and Khálápur ranges transferred from the Northern to the Southern Circle.

FORM No. 52—*continued.*

Division.	Name of Plantation.	Area in Acres. On 1st April 1891.	Added during the year.	Excluded during the year.	Area on 1st March 1892.	Receipts Of the year.	Charges Of the year.	Remarks.
	Cultural Operations.	A. g.	A. g.	A. g.	A. g.	Rs.	Rs.	
Central Division of Kánara.	Sahasrawali...	12 0	...	...	12 0	...	...	
	Yellápur	26 0	...	...	26 0	20	6 7	
	Harwada	1 0	...	...	1 0	...	...	
	Baleguli	8 0	...	...	8 0	5	155	
	Hulihond	...	4 0	...	4 0	...	69	
Southern Division of Kánara.	Banwási	27 0	...	...	27 0	...	...	
	Anogundi	7 0	...	...	7 0	...	...	
	Kalkatti	2 0	...	...	2 0	...	...	
Belgaum Division ...	Three Kumri villages in Belgaum	50 0	...	29 0	21 0	...	...	
	Nagargali	0 10	0 10	...	0 20	...	1	
	Sowing seeds in Konnur Jungles	200 0	...	...	200 0	...	...	
	Mawlinge	12 0	...	12 0	...	...	...	
	Umbgaon	10 0	...	10 0	...	...	...	
	Kunbargi	12 0	4 0	11 0	5 0	...	3	
	Bhogoli	8 0	...	8 0	...	...	...	
	Nittur	7 0	...	7 0	...	...	...	
	Isápur	12 0	...	12 0	...	...	...	
	Shiroli	5 0	...	5 0	...	...	...	
	Gunji...	12 0	...	12 0	...	...	...	
	Maskenhatti	2 0	...	...	2 0	...	1	
	Nandgad	12 0	...	12 0	...	...	...	
	Gundoli	4 0	...	4 0	...	...	...	
	Talewádi	5 0	...	5 0	...	...	...	
	Ghotgalli	3 0	...	3 0	...	...	...	
	Golehalli	2 0	...	2 0	...	...	1	
	Ramgurwádi	2 0	...	2 0	...	...	...	
	Karalgi	4 0	...	4 0	...	...	...	
	Degaum	3 0	...	3 0	...	...	...	
	Ragikumri	5 0	...	5 0	...	...	...	
	Manjarpai	1 0	...	1 0	...	...	...	
	Hemmadge	300 0	...	...	300 0	...	...	
	Bagarnal	126 0	...	126 0	...	...	...	
	Biranholi	200 0	...	200 0	...	...	...	
	Mastiholi	5 0	...	5 0	...	...	...	
Dhárwár Division ...	Kambarganvi	375 0	...	...	375 0	...	...	
	Hosur	307 0	...	...	307 0	...	...	
	Hunshikundi	300 0	...	...	300 0	...	...	
	Karkikop	1 0	...	...	1 0	...	..	
	Dhundshi	80 0	...	...	80 0	...	...	
	Allipur	16 0	...	...	16 0	...	...	
	Babapur	127 0	...	...	127 0	...	...	
	Channikatti...	10 0	...	...	10 0	...	...	
	Bassapur	10 0	...	...	10 0	...	...	
	Harrikatti	2 0	...	...	2 0	...	...	
	Bannihatti	42 0	...	...	42 0	...	...	
	Holtikota	200 0	...	...	200 0	...	...	
	Ragi Kallapur	25 0	...	...	25 0	...	...	
	Kalkeri	200 0	...	...	200 0	...	...	
	Galginkatti	470 0	...	...	470 0	...	...	
	Tersikop	300 0	...	...	300 0	...	...	
	Kalkundi	100 0	...	...	100 0	...	...	
	Hindasgori	400 0	...	...	400 0	...	...	
	Halikoti Chikeri	706 0	...	...	706 0	...	...	
	Dudihalli	51 0	...	...	51 0	...	...	
	Nidnigal	44 0	...	...	44 0	...	...	
	Ballápur	8 0	...	...	8 0	...	...	
	Chikabbar	46 0	...	...	46 0	...	...	
	Medleri	144 0	...	...	144 0	...	...	
	Dambal	463 0	...	...	463 0	...	...	
	Sankadwadak	268 0	...	...	268 0	...	...	
	Nabapur	172 0	...	...	172 0	...	...	
Bijápur Division ...	Mamdápur	216 0	...	...	216 0	...	...	
	Kaládgi	195 0	...	...	195 0	...	...	
	Jaknur	9 0	...	...	9 0	..	...	
	Khánápur	0 20	...	...	0 20	...	...	
	Nágral	0 20	...	...	0 20	..	...	
	Hosur	2 0	...	...	2 0	...	...	
	Mangalur	2 0	...	..	2 0	...	...	
Kolába-Ratnágiri Division.	Sáttád	81 0	...	...	81 0	...	...	
	Ektád	5 0	...	...	5 0	...	...	
	Karjat	...	20 0	...	20 0	...	...	
	Khálápur	...	2 0	...	2 0	...	...	
	Dápoli	82 0	1 0	28 0	55 0	...	...	
	Khed...	17 0	...	...	17 0	...	...	
	Chiplún	73 0	...	...	73 0	..	...	
	Sangameshvar	169 0	30 0	71 0	128 0	...	..	
	Málwan	30 0	...	..	30 0	...	...	
	Total, Cultural Operations...	6,834 10	269 10	785 20	6,318 0	25	297	
	Grand Total ...	10,827 10	355 10	785 20	10,397 0	1,247	2,723	

Belgaum, 27th August 1892.

R. C. WROUGHTON,
Conservator of Forests, Southern Circle

FORM No. 54.

Forest Department, Bombay, Southern Circle.

Outturn (in cubic feet solid) of Timber and Fuel during the year 1891-92 and Agency of Exploitation.

Division.	Timber in the rough Logs.					Timber in the rough Poles.					Sawn or Squared Timber.					Miscellaneous.					Fuel.					Total.
	Government.	Purchasers.	Free grants.	Right-holders.	Total.	Government.	Purchasers.	Free grants.	Right-holders.	Total.	Government.	Purchasers.	Free grants.	Right-holders.	Total.	Government.	Purchasers.	Free grants.	Right-holders.	Total.	Government.	Purchasers.	Free grants.	Right-holders.	Total.	Outturn.
	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Northern Division of Kánara	33,865	38,141	4,303	...	76,312	45,951	20	200	...	46,171	260,930	7,910	7,186	...	276,026	Bamboos No. 1,905 Sandalwood Trees 139 1,630	Bamboos No. 2,250,048	Bamboos No. 5,350	...	Bamboos No. 2,257,303 Sandalwood Trees 139 1,630	471,378	216,293	1,813	...	689,484½	Bamboos No. 2,257,303 Sandalwood Trees 139 1,089,623
Central Division of Kánara	120,161	23,826	20,749	..	175,736	10,371	767	2,813	...	13,951	9,538	...	...	...	9,538	Bamboos No. 1,158 Sandalwood Khandis 18-18-10½ 25,368	Bamboos No. 831,962 2,238	Bamboos No. 6,150	...	Bamboos No. 889,270 Sandalwood Khandis 18-18-10½ 27,606	9,528	1,141,015	...	...	1,150,543	Bamboos No. 889,270 Sandalwood Khandis 18-18-10½ 1,377,374
Southern Division of Kánara	206	40,984	16,153	...	57,343	...	...	85	...	85	19,080	...	..	...	19,080	Sandalwood Khandis 36-16-7 36	Bamboos No. 144,619	Bamboos No. 3,000	...	Bamboos No. 147,619 Sandalwood Khandis 36-16-7 36	14,040	171,576	...	...	185,616	Bamboos No. 147,619 Sandalwood Khandis 36-16-7 262,160
Belgaum Division ...	...	583	...	...	583	34,902	1,642	768	...	37,212	8,916	533	...	...	9,449	Bamboos No. 700 Sandalwood Pieces 964 10,510	Bamboos No. 401,337 5	.....	..	Bamboos No. 402,037 Sandalwood Pieces 964 10,515	3,245,308	332,036	...	...	3,627,344	Bamboos No. 402,037 Sandalwood Pieces 964 3,685,103
Dhárwár do. ...	...	...	...	...	...	69,334	236	239	...	69,809	...	...	...	...	...	.....	Bamboos No. 335,247	.....	...	Bamboos No. 335,247	154,368	59,462	...	...	213,830	Bamboos No. 335,247 283,639
Bijápur do. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	2,659	...	...	2,659	...	236,412	..	...	236,412	239,071
Kolába-Ratnágiri Division	...	...	...	...	...	109,635	598,120	16,660	...	724,415	...	...	...	...	...	.....	118,894	.....	...	118,894	2,375	138,211	...	...	140,586	983,895
Total ...	154,232	103,537	47,205	...	309,974	270,193	600,635	20,765	...	891,643	298,464	8,443	7,186	...	314,093	37,544 Bamboos No. 3,763 Sandalwood Khandis 55-14-17½ Sandalwood Pieces 964 Sandalwood Trees 139	123,796 Bamboos No. 4,013,213	..... Bamboos No. 14,500	...	161,340 Bamboos No. 4,031,476 Sandalwood Khandis 55-14-17½ Sandalwood Pieces 964 Sandalwood Trees 139	3,896,997	2,345,005	1,813	...	6,243,815	7,920,865 Bamboos No. 4,031,476 Sandalwood Khandis 55-14-17½ Sandalwood Pieces 964 Sandalwood Trees 139

Belgaum, 27th August 1892.

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

FORM No. 55.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Outturn of Minor Forest Produce.

Division.	Description of Produce.	Produce removed or utilized.									
		By Government Agency.		By Purchasers.		By Free Grants.		By Right-holders.		Total.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
			Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.
Northern Division of Kánara.	Charcoal ... ... Cubic feet.	.....	.....	500	13 15 0	...	.....	...	.....	500	13 15 0
	Grazing fees	.....	.....	...	7,376 8 6	...	.....	...	.....	.....	7,376 8 6
	Honey	.....	.....	...	562 5 4	...	.....	...	.....	.....	562 5 4
	Stones ... ... Cubic feet.	.....	.....	4,600	7 3 0	...	.....	...	.....	4,600	7 3 0
	Myrabolams ... Khandis.	1,536 5	29,647 5 4	...	.....	...	.....	...	.....	1,536 5	29,647 5 4
	Pepper	.....	.....	...	15 0 0	...	.....	...	.....	.....	15 0 0
	Shigekai	.....	.....	...	800 0 0	...	.....	...	.....	.....	800 0 0
	Cinnamon bark	.....	.....	...	75 0 0	...	.....	...	.....	.....	75 0 0
	Tapping fees on baini trees ...	.....	.....	813	50 13 0	...	.....	...	.....	813	50 13 0
	Canes ... ... Head-loads.	.....	.....	78	19 8 0	...	.....	...	.....	78	19 8 0
	Shindoli branches and leaves... ... ,,	.....	.....	233	7 4 6	...	.....	...	.....	233	7 4 6
	Wild termeric	.....	.....	...	7 0 0	...	.....	...	.....	.....	7 0 0
	Nux vomica	.....	.....	...	13 8 0	...	.....	...	.....	.....	13 8 0
	Shembe bark	.....	.....	...	40 10 0	...	.....	...	.....	.....	40 10 0
	Goting	.....	.....	...	15 0 0	...	.....	...	.....	.....	15 0 0
	Fruits	.....	.....	...	25 4 3	...	.....	...	.....	.....	25 4 3
	Irai seed ... ... Lbs.	7	0 9 0	...	.....	...	.....	...	.....	7	0 9 0
	Rági ... ...Seers.	24	1 0 0	...	.....	...	.....	...	.....	24	1 0 0
	Total ...	.....	29,648 14 4	...	9,028 15 7	...	.....	...	.....	.....	38,677 13 11
Central Division of Kánara.	Grass ... ... Bundles.	63,320	197 14 0	413,750	206 14 0	...	.....	...	.....	477,070	404 12 0
	Dust grass ... ... Head-loads.	2	0 3 0	...	.....	...	.....	...	.....	2	0 3 0
	Shigekai ... ... Khandis.	2 13 22½	63 12 11	...	.....	...	.....	...	.....	2 13 22½	63 12 11
	Myrabolams ... ,,	425 12 1	4,920 0 5	...	.....	...	.....	...	.....	245 12 1	4,920 0 5
	Grazing fees	.....	.....	...	7,759 9 6	...	.....	...	.....	.....	7,759 9 6
	Honey	.....	.....	...	1,498 8 0	...	.....	...	.....	.....	1,498 8 0
	Rámfal and Rámpatri	.....	.....	...	1,930 6 3	...	.....	...	.....	.....	1,930 6 3
	Pepper	.....	.....	...	190 0 0	...	.....	...	.....	.....	190 0 0
	Cinnamon	.....	.....	..	141 0 0	...	.....	...	.....	.....	141 0 0
	Catechu	.....	.....	...	1,460 0 0	...	.....	...	.....	.....	1,460 0 0
	Nux vomica	.....	.....	...	71 8 0	...	.....	...	.....	.....	71 8 0
	Canes ... ... Head-loads.	... ...	.....	150½	43 6 0	8	2 0 0	...	.....	164½	45 6 0
	Bamboos on contract	.....	.....	150,000	87 0 0	...	.....	...	.....	150,000	87 0 0
	Grass...	.....	.....	...	14 10 0	...	.....	...	.....	.....	14 10 0
	Tapping fees on baini trees ...	.....	.....	374	23 6 0	...	.....	...	.....	374	23 6 0
	Baini trees	.....	.....	1	1 0 0	...	.....	...	.....	1	1 0 0
	Earth and stones ... Cubic feet.	.....	.....	7,542	16 4 0	...	.....	...	.....	7,542	16 4 0
	Quarry fees...	.....	... ..	...	5 4 0	...	.....	...	.....	.....	5 4 0
	Cocoanuts, supári and Jack fruits	.....	.....	...	8 2 9	...	.....	...	.....	.....	8 2 9
	Total ...	.....	5,181 14 4	...	13,456 14 6	...	2 0 0	...	.....	.....	18,640 12 10
Southern Division of Kánara.	Myrabolams ... Khandis.	1,564 6	20,500 0 0	...	.....	...	.....	...	.....	1,564 6	20,500 0 0
	Shigekai and soap-nuts. ,,	65 6	1,555 4 4	...	.....	...	.....	...	.....	65 6	1,555 4 4
	Grazing fees	.....	.....	...	10,453 12 8	...	.....	...	.....	... ..	10,453 12 8
	Honey	.....	.....	...	1,777 0 0	...	.....	...	.....	.....	1,777 0 0
	Canes ... ... Head-loads.	.....	.....	380	180 4 0	11	2 12 0	...	.....	391	183 0 0
	Thorns ... ... Cart-loads.	.....	.....	35	5 0 0	...	.....	...	.....	35	5 0 0
	Stones ... ... ,,	.....	.....	1,608	100 8 0	...	.....	...	.....	1,608	100 8 0
	Palm trees ... . No.	.....	.....	68	68 0 0	...	.....	...	.....	68	68 0 0
	Tapping fees	.....	... ..	...	174 7 0	...	.....	...	.....	.....	174 7 0
	Grass shieves	.....	.....	14,000	7 0 0	...	.....	...	.....	14,000	7 0 0
	Wild arrowroot bulbs	.....	.....	...	25 0 0	...	.....	...	.....	.....	25 0 0
	Rámpatri, Rámfal and Cinnamon.	.....	.....	...	845 14 6	...	.....	...	.....	.....	845 14 6
	Wild pepper	.....	.....	...	54 11 0	...	.....	...	.....	.....	54 11 0
	Catechu	.....	.....	...	3,481 0 0	...	.....	...	.....	.....	3,481 0 0
	Alex sistu	.....	.....	...	13 0 8	...	.....	...	.....	.....	13 0 8
	Tali bark ... ...Loads.	.....	.....	41	12 12 0	...	.....	...	.....	41	12 12 0
	Total ...	.....	22,055 4 4	...	17,193 5 10	...	2 12 0	...	.....	.....	39,256 6 2
Belgaum Division.	Myrabolams ... Khandis.	5,148 1	80,662 0 0	...	.....	...	.....	...	.....	5,148 1	80,662 0 0
	Canes... ... ...Head-loads.	.....	.....	103	6 7 0	...	.....	...	.....	103	6 7 0
	Grazing fees	.....	.....	...	35,914 4 6	...	.....	...	.....	.....	35,914 4 6
	Grass from Kurans	.....	.....	...	6,193 0 9	...	.....	...	.....	.....	6,193 0 9
	Grass... ... ... Bundles.	.....	.....	382	5 14 6	...	.....	...	.....	382	5 14 6
	Tapping fees on toddy trees ...	.....	.....	29	1 13 0	...	.....	...	.....	29	1 13 0
	Stone ... ... Cubic feet.	.....	.....	10,032	57 5 7	...	.....	...	.....	10,032	57 5 7
	Do. ... ... Cart-loads.	.....	.....	6,387	497 7 0	...	.....	...	.....	6,387	497 7 0
	Do. ... Donkey-loads.	.....	.....	7,986	112 9 0	...	.....	...	.....	7,986	112 9 0
	Earth ... ... Cart-loads.	.....	.....	64	4 0 0	...	.....	...	.....	64	4 0 0
	Do. ... ...Head-loads.	.....	.....	295	1 9 9	...	.....	...	.....	295	1 9 9
	Sand ... ... Cubic feet.	.....	.....	7,266	4 8 8	...	.....	...	.....	7,266	4 8 8
	Mooram ... ... ,,	.....	.....	300	0 6 0	...	.....	...	.....	300	0 6 0
	Concrete ... ... ,,	.....	.....	2,400	3 0 0	...	.....	...	.....	2,400	3 0 0
	Thorns ... ... Cart-loads.	... ..	.....	64	30 12 0	...	.....	...	.....	64	30 12 0
	Do. ... Bullock-loads.	.....	.....	421	71 12 6	...	.....	...	.....	421	71 12 6
	Do. ... ... Head-loads.	.....	.....	951	46 4 3	...	.....	...	.....	951	46 4 3
	Tarwad branches ... ,,	.....	.....	3,698	346 11 0	...	.....	...	.....	3,698	346 11 0
	Bundirgi leaves ... ,,	.....	.....	157	16 2 0	...	.....	...	.....	157	16 2 0
	Wild date palm leaves ... ... Cart-loads.	.....	.....	683	356 12 0	...	.....	...	.....	683	356 12 0
	Do. do. ... Head-loads.	.....	.....	5,434	169 13 0	...	.....	...	.....	5,434	169 13 0
	Shigekai ... ... Maunds.	.....	.....	2,400	1,147 0 0	...	.....	...	.....	2,400	1,147 0 0
	Honey ... ... ,,	.....	.....	368	528 0 0	...	.....	...	.....	368	528 0 0
	Gum... ... ... ,,	.....	.....	358	880 0 0	...	.....	...	.....	358	880 0 0
	Cinnamon ... ... ,,	.....	.....	40	65 0 0	...	.....	...	.....	40	65 0 0
	Charcoal ... ... Cubic feet.	21,797	2,886 9 10	...	.....	...	.....	...	.....	21,797	2,886 9 10
	Mattibark ... ... Cart-loads.	.....	.....	3	3 14 0	...	.....	...	.....	3	3 14 0
	Fruit farm	.....	.....	...	5 9 0	...	.....	...	.....	.....	5 9 0
	Ashani leaves ...Head-loads.	.....	.....	351	10 15 6	...	.....	...	.....	351	10 15 6
	Kárvi ... ... Cart-loads.	.....	.....	54	40 8 0	...	.....	...	.....	54	40 8 0
	Minor produce	.....	.....	...	391 0 0	...	.....	...	.....	... ..	391 0 0
	Total ...	.....	83,048 9 10	...	46,862 7 0	...	.....	...	.....	.....	1,29,911 0 10

FORM No. 55—*continued.*

Division.	Description of Produce.	Produce removed or utilized.									
		By Government Agency.		By Purchasers.		By free Grants.		By Right-holders.		Total.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
			Rs. a. p.		Rs. a. p.						Rs. a. p.
Dhárwár Division.	Grazing fees	.....	.....	...	27,572 13 11	...	.....	...	.....	.....	27,572 13 11
	Honey	.....	.....	...	190 0 0	...	.....	...	.....	.....	190 0 0
	Fruit	.....	.....	...	87 9 4	...	.....	...	.....	.....	87 9 4
	Marking nuts	.....	.....	...	45 14 0	...	.....	...	.....	.....	45 14 0
	Karanj seed	.....	.....	...	639 0 0	...	.....	...	.....	.....	639 0 0
	Babul pods	.....	.....	...	82 0 0	...	.....	...	.....	.....	82 0 0
	Myrabolams ... Khandis	15 1	164 4 0	...	11 0 0	...	.....	...	.....	15 1	195 4 0
	Stones ... ... Cubic feet	.....	.....	43,490	236 3 7	...	.....	...	.....	43,490 0	236 3 7
	Earth ... ... Do.	.....	.....	138	4 11 0	...	.....	...	.....	138 0	4 11 0
	Tapping fees on toddy trees	.....	.....	1,601	100 1 0	...	.....	...	.....	1,601 0	100 1 0
	Grass ... ... Loads	.....	.....	3,990	122 13 0	...	.....	...	.....	3,990 0	122 13 0
	Do. pullies	3,23,695 0	758 7 0	1,44,575	144 11 11	...	.....	...	.....	468,270 0	933 2 11
	Do. for brooms ... Loads	.....	.....	34	2 8 6	...	.....	...	.....	34 0	2 8 6
	Do. for thatching ... Do.	.....	.....	413	6 7 3	...	.....	...	.....	413 0	6 7 3
	Do. in kurans and closed numbers ... Auctioned	.....	.....	...	1,382 3 0	...	.....	...	.....	.....	1,382 3 0
	Toddy tree branches. Cart-loads.	.....	.....	10	11 4 0	...	.....	...	.....	10 0	11 4 0
	Do. do. donkey do.	.....	.....	389	24 5 0	...	.....	...	.....	389 0	24 5 0
	Do. do. Head-loads	.....	.....	169	2 10 3	...	.....	...	.....	169 0	2 10 3
	Thorns ... ...Loads	.....	.....	2,744	202 5 0	...	.....	...	.....	2,744 0	202 5 0
	Manure ... ... Auctioned	.....	.....	...	1 10 6	...	.....	...	.....	.....	1 10 6
	Wire creepers ... ...Loads	.....	.....	5	0 5 0	...	.....	...	.....	5 0	0 5 0
	Leaves green ... ... Do.	.....	.....	34	13 2 0	...	.....	...	.....	34 0	13 2 0
	Total ...	.....	972 11 0	...	30,883 10 3	...	.....	...	.....	.....	31,856 5 3
Bijápur Division	Stones ... ... Cubic feet	.....	.....	150,184	3,030 2 9	...	.....	...	.....	150,184 0	3,030 2 9
	Earth ... ... Do.	.....	.....	10,993	197 9 6	...	.....	...	.....	10,993 0	197 9 6
	Tarwad bark	.....	.....	...	1,600 0 0	...	.....	...	.....	.....	1,600 0 0
	Total ...	.....	.....	...	4,827 12 3	...	.....	...	.....	.....	4,827 12 3
Kolába, Ratnágiri Division	Grass and Grazing fees	.....	.....	...	2,560 0 6	...	.....	...	.....	.....	2,560 0 6
	Thorns and fruits...	.....	.....	...	139 3 9	...	.....	...	.....	.....	139 3 9
	Myrabolams and Shigekai ...	.....	.....	...	1,053 12 0	...	.....	...	.....	.....	1,053 12 0
	Myrabolam ... Khandis	0 18 0	30 9 7	...	.....	...	.....	...	.....	0 18 0	30 9 7
	Apta leaves...	.....	.....	...	631 0 0	...	.....	...	.....	.....	631 0 0
	Kárvi	.....	.....	...	21 0 0	...	.....	...	.....	.....	21 0 0
	Total ...	.....	30 9 7	...	4,405 0 3	...	.....	...	.....	.....	4,435 9 10

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

Belgaum, 27th August 1892.

FORM No. 56.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1891-92.

Particulars.	No. or Quantity.	Cubic Feet.	TOTAL OF EACH HEAD. No. or Quantity.	TOTAL OF EACH HEAD. Cubic Feet.
TIMBER.				
BALANCE AT COMMENCEMENT OF THE YEAR.				
Northern Division of Kánara.				
Teakwood logs	6,603	184,609		
Blackwood do	234	6,323		
Junglewood logs	698	19,565		
Teak round pieces	111	282		
Do. sleepers	650	975		
Do. slabs	10,891	3,824		
			19,187	215,638
Central Division of Kánara.				
Teak round pieces	3,064	12,057		
Do. poles	5,838	12,980		
Do. logs	3,776	45,152		
Do. sleepers	847	1,330		
Do. slabs	8,569	6,953		
Adzed rectangular sleepers	9	18		
Sitting boards	73	...		
Round teak board	1	...		
Miscellaneous pieces	...	27		
Blackwood logs	324	2,146		
Do. poles	133	402		
Junglewood logs	2,735	52,444		
Jiráiti pieces	967	1,261		
			25,835	134,770
Southern Division of Kánara.				
Teak	266	5,349		
Blackwood	4	71		
Junglewood	524	10,124		
			794	15,544
Belgaum Division.				
Teak poles	9,398	12,964		
Junglewood poles	2,514	3,090		
			11,912	16,054
Dhárwár Division.				
Teak rafters	1,661	7,535		
Matti rafters	9	29		
Blackwood rafters	2	9		
Jiráiti pieces	36	40		
			1,708	7,613
Kolába Division.				
Teak pieces of sorts	1,864	6,000		
Miscellaneous pieces	611			
			2,475	6,000
Ratnágiri Division.				
Miscellaneous pieces	94	230		
			94	230
Total Balance			62,005	395,849
RECEIVED FROM THE FORESTS IN DEPÔTS.				
Teak logs	17,039	352,164		
Do. poles	25,100	80,189		
Do. pieces	6,119	25,008		
Do. rafters	18,339	59,635		
Do. sleepers	63	63		
Teak pieces of different classes	26,855	110,685		
Miscellaneous pieces	7,048			
Blackwood logs	989	21,298		
Do. poles	95	200		
Do. pieces	60	270		
Junglewood logs	3,170	67,373		
Do. poles	5,623	8,068		
Do. pieces	898	3,406		
Adzed rectangular sleepers	41	62		
Round sleeper pieces	523	792		
Jiráiti pieces	7,414	15,416		
			119,384	744,989

Particulars.	No. or Quantity.	Cubic Feet.	TOTAL OF EACH HEAD. No. or Quantity.	TOTAL OF EACH HEAD. Cubic Feet.
REMOVED BY PURCHASERS FROM DEPÔTS.				
Teak logs	10,623	231,157		
Do. poles	31,005	84,309		
Do. round pieces	1,430	7,336		
Do. sleepers	833	1,288		
Do. round sleeper pieces	525	787		
Teak pieces	1,977	99		
Do. slabs	6,935	4,580		
Do. rafters	8,749	30,244		
Teak pieces of sorts	28,573	116,358		
Miscellaneous pieces	7,711			
Sitting boards	22	...		
Teak chips and stacks	51	...		
Blackwood logs	588	14,295		
Do. poles	111	417		
Do. pieces	5	11		
Junglewood logs	2,566	45,327		
Do. poles	8,697	13,542		
Do. pieces	266	741		
Jiráiti pieces	6,245	13,147		
Matti rafters	9	29		
Shiwani wood	...	1		
			116,881	563,668
SOLD LOCALLY.				
Teakwood logs	130	836		
Do. poles	847	1,229		
Do. pieces	412	433		
Do. planks	7	21		
Blackwood logs	53	185		
Do. pieces	16	31		
Junglewood logs	164	981		
Do. poles	813	1,003		
Do. pieces	753	1,012		
Do. rafters	26	241		
Do. stakes	2,548	...		
Casuarina poles	81	270		
			5,840	6,242
USED BY THE DEPARTMENT.				
Junglewood logs	156	2,092		
Teak logs	26	392		
Do. rafters	9	36		
Do. slabs	2,010	842		
Blackwood logs	2	19		
Miscellaneous	...	9		
			2,203	3,389
TRANSFERRED TO OTHER SALE DEPÔTS.				
Teak logs	175	5,662		
			175	5,662
WRITTEN OFF AS LOST.				
Teak rafters	46	128		
			46	128
BALANCE AT CLOSE OF THE YEAR.				
Northern Division, of Kánara.				
Teakwood logs	9,010	254,986		
Do. round pieces	111	282		
Do. sleepers	650	975		
Do. slabs	8,094	2,665		
Do. poles	7,558	15,116		
Blackwood logs	489	11,957		
Junglewood logs	1,506	43,794		
Do. poles	7	34		
			27,425	329,809
Central Division of Kánara.				
Teak logs	7,587	90,908		
Do. poles	1,163	6,247		
Do. round pieces	5,776	29,630		
Do. sleepers	301	374		
Do. slabs	13,936	9,385		
Do. round board	1	...		
Do. ends and pieces	2,247	2,730		
Blackwood logs	472	3,566		
Do. poles	168	486		
Sitting boards	40	...		
Jiráiti pieces	975	1,272		
Miscellaneous pieces	...	12		
Junglewood logs	2,270	45,953		
			34,936	190,593
Southern Division of Kánara.				
Teakwood	480	9,654		
Do. sleepers	23	23		
Do. round sleeper pieces	3	5		
Junglewood	624	12,241		
			1,130	21,923

FORM No. 56—*continued.*

Particulars.	No. or Quantity.	Cubic Feet.	Total of each head. No. or Quantity.	Total of each head. Cubic Feet.
Received from the Forests and sold locally.				
Teakwood logs	13	603		
Do. poles	83	1,462		
Do. pieces	412	433		
Blackwood logs	53	185		
Do. pieces	16	81		
Junglewood logs	164	828		
Do. poles	813	1,093		
Do. pieces	753	1,105		
Teak planks	7	21		
Casuarina poles	81	270		
Junglewood rafters	36	241		
Do. stakes	2,543	...	5,840	6,242
Received by conversion in Depôts.				
Teak sleepers	194	212		
Do. slabs	11,565	6,695		
Teak chips—stacks	51	...		
Miscellaneous teak ends and pieces	2,247	2,730	*14,057	*9,637
Received by transfer from sale Depôts.				
Teak logs	175	5,662	175	5,662
Total, Timber	...	...	201,461	1,162,379
Balance at commencement of the year.				
Northern Division of Kánara.				
Firewood	...	23,040	...	23,040
Central Division of Kánara.				
Firewood	..	2,352	...	2,352
Southern Division of Kánara.				
Firewood	...	6,174	...	6,174
Belgaum Division.				
Firewood	...	228,206	...	228,206
Dhárwár Division.				
Firewood	...	56,322	...	56,322
Total Balance	...	...	...	316,094
Received from the Forests in Depôts.				
Firewood	..	2,712,702		
Charcoal	...	21,797	...	2,764,499
Received from the Forests and sold locally.				
Firewood	...	7,954	...	7,954
Total, Firewood	...	...	...	3,088,547
Received from the Forests in Depôts.				
Bamboos	3,267	...	3,267	...
Received from the Forests and sold locally.				
Bamboos	2,846	..	2,846	...
Total, Bamboos	...	...	6,113	...
Balance at commencement of the year.				
Central Division of Kánara.				
Sándalwood ... Trees.	7	...	..	...
Southern Division of Kánara.				
Sandalwood ... Khandis.	0-1-8-19	...	...	...
Do. oil ... Tolas.	296	..	...	..
Dhárwár Division.				
Sandalwood ... Roots.	60	...	...	...
Do. ... Trees.	5	...	...	..

Particulars.	No. or Quantity.	Cubic Feet.	Total of each head. No. or Quantity.	Total of each head. Cubic Feet.
TIMBER—*continued.*				
Balance at close of the year —*continued.*				
Belgaum Division.				
Teak logs	58	538		
Do. poles	110	461		
Junglewood	5	68		
Do. poles	10	53		
Jiráiti pieces	118	218	301	1,338
Dhárwár Division.				
Teak rafters	11,196	36,763		
Blackwood rafters	6	27		
Junglewood do.	55	194		
Teak jiraiti do.	1,079	2,080	12,336	39,064
Kolába Division.				
Teak pieces of sorts	132	426	132	426
Ratnágiri Division.				
Miscellaneous pieces	56	137	56	137
Total, Balance	...	...	76,316	583,290
Total, Timber	...	...	201,461	1,162,379
FIREWOOD.				
Removed by purchasers from Depôts.				
Firewood	...	2,802,717		
Charcoal	...	21,797	...	2,824,514
Sold locally.				
Firewood	...	7,954	...	7,954
Balance at close of the year.				
Central Division of Kánara.				
Firewood	...	2,596	...	2,596
Southern Division of Kánara.				
Firewood	...	12,762	...	12,762
Belgaum Division.				
Firewood	...	212,139	...	212,139
Dhárwár Division.				
Firewood	...	23,332	...	23,332
Ratnágiri Division.				
Firewood	...	250	...	250
Total Balance	...	...	...	256,079
Total, Firewood	...	...	...	3,088,547
BAMBOOS.				
Removed by purchasers from Depôts.				
Bamboos	900	...	900	...
Sold locally.				
Bamboos	2,846	...	2,846	...
Used by the Department.				
Bamboos	2,317	...	2,317	...
Balance at close of the year.				
Belgaum Division.				
Bamboos	50	...	50	...
Total, Bamboos	...	...	6,113	...
SANDALWOOD.				
Removed by purchasers from Depôts.				
Sandalwood ... Tree	101	...	...	...
Do. ... Roots	745	...	...	...
Do. ... Branches	11	...	...	...
Do. ... Pieces	40	...	...	...
Do. ... Cart-loads	2	...	...	...
Do. ... Chips	...	0-1-2-0	...	...
Do. ... Billets	3,487	...	...	...
Do. ... Do.	...	0-7-15-25	...	...
Do. ... Khandis	...	0-1-8-19	...	...
Do. oil, Tolas	210½	...	...	...
Do. chips and white wood Stacks.	4	...	...	...

* Of these, 51 stacks teak chips and 32 slabs of 99 cubic feet appertain to Northern Division, Kánara, and the rest to Central Division, Kánara. These materials are not the outcome of any timber converted during 1891-92, but of that converted in past years, which were discovered by Divisional Officers during their inspection of the stock at depôts. Hence they have been accounted for in this return under "Received by conversion in Depôts."

FORM No. 56—*concluded.*

Particulars.	No. or Quantity.	Cubic Feet.	Total of each head. No. or Quantity.	Total of each head. Cubic Feet.
RECEIVED FROM THE FORESTS IN DEPÔTS.				
Sandalwood ... ... Trees.	438	...		
Do. ... ... Roots.	239	...		
Do. ... ... Branches.	34	...		
Do. ... ... Pieces.	40	...		
Do. ... ... Billets.	1,470	...		
Do. ... ... Cart-loads.	2	...		
Do. Chips ... ... Carts.	5	...		
Do. ... ... Billets.	...	0-7-15.25		
RECEIVED FROM THE FORESTS AND SOLD LOCALLY.				
Sandalwood pieces	966	...		
RECEIVED BY CONVERSION IN DEPÔTS.				
Sandalwood ... ... Billets.	2,088	...		
Do. ... ... Roots.	590	...		
Do. chips and white wood ... ... Stacks.	5	...		
Do. ... ... Chips.	...	0-4-9-0		
MINOR PRODUCE.				
BALANCE AT CLOSE OF THE YEAR.				
Northern Division of Kánara.				
Myrabolams ... ...Khandis.	...	27		27
Central Division of Kánara.				
Shigekai ... .Khandis.	...	1-14-18½		
Grass... ... ...Bundles.	180,243	...		
			180,243	1-14-18½
Southern Division of Kánara.				
Myrabolams ... ...Khandis.	...	301-14-1		
Shikekai ... ... Do.	...	6-19-0		
			...	308-13-1
Belgaum Division.				
Myrabolams ... ...Khandis.	...	30-12-0		
			...	30-12-0
Total Balance ...	...	...	180,243	367-19-19½
RECEIVED FROM THE FORESTS IN DEPÔTS.				
Myrabolams ... ...Khandis.	...	8,519-1-25½		
Shigekai ... ... Do.	...	68-1-11½		
Grass ... ...Bundles.	495,020	...		
Divi Divi seed ... ... Bags.	18	...		
			495,020 18	8,587-3-9½
Total, Minor Produce ...			675,263 18	8,955-3-0½

Particulars.	No. or Quantity.	Cubic Feet.	Total of each head. No. or Quantity.	Total of each head. Cubic Feet.
Sold Locally.				
Sandalwood ... ... Pieces.	966	...		
Converted in Depôts.				
Sandalwood ... ... Trees.	339	...		
BALANCE AT CLOSE OF THE YEAR.				
Central Division of Kánara.				
Sandalwood ... ... Trees.	10	...		
Do. ... ... Billets.	70	...		
Do. ... ... Chips.	...	0-3-0		
Do. and white wood ... Stacks.	1	...		
Southern Division, Kánara.				
Sandalwood ... Chips and Carts.	5	...		
Do. ... ... Billets.	1	...		
Do. oil ... Tolas.	85½	...		
Dhárwár Division.				
Sandalwood ... ... Roots.	144	...		
Do. ... ... Branches.	23	...		
REMOVED BY PURCHASERS FROM DEPÔTS.				
Myrabolams ... ... Khandis.	...	8,269-6-26½		
Shigekai ... ... Do.	...	34-10-25½		
Grass... ... ... Bundles.	387,015	...		
			387,015	8,303-17-24
Used by the Department.				
Grass ... ... Bundles.	10,200	...		
			10,200	...
BALANCE AT CLOSE OF THE YEAR.				
Northern Division of Kánara.				
Myrabolams ... ... Khandis.	...	34		
Divi Divi seed ... ... Bags.	18	...		
			18	34
Central Division of Kánara.				
Myrabolams ... ...Khandis.	...	1-18-27		
Shigekai ... ... Do.	...	1-16-11½		
Grass ... ... Bundles.	134,993	...		
			134,993	3-15-10½
Southern Division of Kánara.				
Myrabolams ... ... Khandis.	...	433-0-1		
Shigekai ... ... Do.	...	40-7-21		
			...	473-7-22
Belgaum Division.				
Myrabolams ... ... Khandis.	...	140-2-0		
			...	140-2-0
Dhárwár Division.				
Grass ... ... Bundles.	143,055	...		
			143,055	...
Total Balance ...	...	...	278,048 18	651-5-4½
Total, Minor Produce ...	...	...	675,263 18	8,955-3-0½ ...

Belgaum, 27th August 1892.

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

FORM No. 57.

Forest Department, Bombay, Southern Circle.

Abstract showing the Value of Timber and other Produce at Sale Depôts for the year 1891-92.

Description of Timber and other Produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.		Remarks.
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.	
			Rs. a. p.			Rs. a. p.	Rs. a. p.	Rs. a. p.	
TIMBER.									
Northern Division of Kánara.									
Teakwood logs	6,603	184,660	2,45,611 0 0	9,010	254,986	3,25,786 0 0	80,175 0 0	.....	
Blackwood logs	234	6,323	5,564 0 0	489	11,957	11,479 0 0	5,915 0 0	.....	
Junglewood logs	698	19,565	17,216 0 0	1,506	43,794	35,035 0 0	17,819 0 0	.....	
Teak round pieces	111	282	166 0 0	111	282	*55 0 0	.....	111 0 0	The price they would fetch now if sold.
Do. sleepeers	650	975	812 0 0	650	975	*325 0 0	.....	487 0 0	
Do. slabs	10,891	3,824	800 0 0	8,094	2,665	108 0 0	.....	692 0 0	
Junglewood poles	...	...	.....	7	34	5 0 0	5 0 0	.....	
Teakwood poles	...	...	.....	7,588	15,116	911 0 0	911 0 0	.....	
Total	...	...	2,70,169 0 0	.....	...	3,73,704 0 0	1,04,825 0 0	1,290 0 0	
Central Division of Kánara.									
Logs	6,835	99,742	93,623 0 0	†10,329	140,457	1,31,840 0 0	41,217 0 0	.....	†Include teak, blackwood and Junglewood.
Teak round pieces	3,064	12,057	4,600 0 0	5,776	29,630	5,776 0 0	1,176 0 0	.....	
Do. sleepers	856	1,348	535 0 0	301	374	240 0 0	.....	295 0 0	
Do. slabs	8,569	6,953	690 0 0	13,936	9,385	770 0 0	80 0 0	.....	
Do. poles	5,338	12,980	5,186 0 0	1,103	6,247	1,990 0 0	.....	3,196 0 0	
Sitting boards'	72	...	10 0 0	40	...	6 0 0	.....	4 0 0	
Miscellaneous scantlings	...	27	12 0 0	.....	12	10 0 0	.....	2 0 0	
Round teak board	1	...	0 5 0	1	...	0 5 0	.....	.....	
Blackwood poles	133	402	135 0 0	168	456	84 0 0	.....	51 0 0	
Jeráiti wood pieces	907	1,261	91 0 0	975	1,272	91 0 0	.....	.....	
Teak ends and pieces	...	...	.....	2,247	2,730	55 0 0	55 0 0	.....	
Total	...	...	1,04,882 5 0	.....	...	1,43,862 5 0	42,528 0 0	3,548 0 0	
Southern Division of Kánara.									
Teakwood	266	5,349	5,962 0 0	480	9,654	14,479 0 0	8,517 0 0	.....	
Blackwood	4	71	61 0 0	.....	...	.....	.....	61 0 0	
Junglewood	524	10,124	8,224 0 0	624	12,242	12,242 0 0	4,018 0 0	.....	
Sleepers	...	...	.....	23	23	46 0 0	46 0 0	.....	
Round sleeper pieces	...	...	.....	3	5	2 0 0	2 0 0	.....	
Total	...	...	14,247 0 0	.....	...	26,769 0 0	12,583 0 0	61 0 0	
Belgaum Division.									
Teak logs	...	...	.....	58	538	387 0 0	387 0 0	.....	
Do. poles	9,398	12,964	2,420 0 0	110	461	37 0 0	.....	2,383 0 0	
Junglewood logs	...	...	.....	5	68	38 0 0	38 0 0	.....	
Do. poles	2,514	3,090	635 8 0	10	53	1 0 0	.....	634 8 0	
Jeráiti pieces	...	...	.....	118	218	65 0 0	65 0 0	.....	
Total	...	...	3,055 8 0	.....	...	528 0 0	490 0 0	3,017 8 0	
Dhárwár Division.									
Teak rafters	1,661	7,535	2,800 0 0	11,196	36,763	13,000 0 0	10,267 0 0	.....	
Matti do.	9	29		55	194	60 0 0			
Blackwood rafters	2	9		6	27	7 0 0			
Jiraiti pieces	36	40	20 0 0	1,079	2,080	390 0 0	370 0 0	.....	
Total	...	...	2,820 0 0	.....	...	13,457 0 0	10,637 0 0	.....	
Kolába-Ratnágiri Division.									
Teak poles and miscellaneous pieces.	2,569	6,230	890 0 0	188	563	168 0 0	.....	722 0 0	
Total	...	...	890 0 0	.....	...	168 0 0	.....	722 0 0	
Total, Timber	...	.....	3,96,063 13 0	.....	...	5,58,488 5 0	171,063	8,638 8 0	
FIREWOOD.									
Northern Division of Kánara.									
Firewood ... Tons.	400	23,040	2,525 0 0	.....	...	... ..	.....	2,525 0 0	
Central Division of Kánara.									
Firewood ... Stacks.	38	684	28 0 0	.....	...	.....	.....	28 0 0	
Do. ... Tons.	17	1,668	136 0 0	.....	...	.....	.....	136 0 0	
Do. ... Cubic feet.	...	...	.....	.....	2,596	74 0 0	74 0 0	.....	
Total	...	...	164 0 0	.....	...	74 0 0	74 0 0	164 0 0	
Southern Division of Kánara.									
Firewood ... Stacks.	343	6,174	257 0 0	709	12,762	502 0 0	245 0 0	.....	
Belgaum Division.									
Firewood ... Stacks.	7,261	221,855	10,310 0 0	6,160	192,544	8,647 0 0	.....	1,663 0 0	
Running ... do ...	...	273	27 8 0	.....	18,203	1,835 0 0	1,807 8 0	.....	
Lighting ... Firewood.	...	1,344	67 3 2	.....	1,392	69 0 0	1 12 10	.....	
Firewood ... Head-loads.	...	4,734	147 0 0	.....	...	.....	.....	147 0 0	
Total	...	...	10,551 11 2	.....	...	10,551 0 0	1,809 4 10	1,810 0 0	

FORM No. 57—*continued.*

Description of Timber and other Produce.	On hand at commencement of the year.			On hand at Close of the year.			Difference in Value.		Remarks.
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favour of the year.	Against the year.	
			Rs. a. p.			Rs. a. p.	Rs. a. p.	Rs. a. p.	
FIREWOOD—*continued.*									
Dhárwár Division.									
Firewood ... ... Stacks.	3,129	56,322	3,129 0 0	1,574	28,332	1,574 0 0	.....	1,555 0 0	
Kolába-Ratnágiri Division.									
Firewood ... ... Khandis.	...	...	.....	10	250	1 0 0	1 0 0	.....	
Total, Firewood ...	...	...	16,626 11 2	.....	...	12,702 0 0	2,129 4 10	6,054 0 0	
BAMBOOS.									
Belgaum Division.									
Bamboos	...	...	.....	50	...	1 3 0	1 3 0	.....	
SANDALWOOD.									
Central Division of Kánara.									
Trees	7	...	15 0 0	10	...	20 0 0	5 0 0	.....	
Billets and chips ... Khandis.	...	...	.....	.....	0 18 9½	75 0 0	75 0 0	.....	
White wood ... ... Stacks.	...	...	.....	1	...	5 0 0	5 0 0	.....	
Total ...	...	...	15 0 0	.....	...	100 0 0	85 0 0	.....	
Southern Division of Kánara.									
Sandalwood ... ... Khandis.	...	1 8 18	9 0 0	.....	0 14 0	3 0 0	.....	6 0 0	
Sandal oil ... ... Tolás.	296	...	55 0 0	85½	...	22 0 0	.....	33 0 0	
Sandal chips ... ... Carts.	...	...	.....	5	...	22 0 0	22 0 0	.....	
Total ...	...	...	64 0 0	.....	..	47 0 0	22 0 0	39 0 0	
Dhárwár Division.									
Sandalwood ... ... Roots.	60	...	50 0 0	144	...	120 0 0	70 0 0	.....	
Do. ... ... Trees.	5	...	10 0 0	.....	...	.....	.....	10 0 0	
Do. ... ... Branches.	...	...	.....	23	...	2 0 0	2 0 0	.....	
Total ...	...	...	60 0 0	.....	...	122 0 0	72 0 0	10 0 0	
Total, Sandalwood ...	...	...	139 0 0	.....	...	269 0 0	179 0 0	49 0 0	
MINOR PRODUCE.									
Northern Division of Kánara.									
Myrabolams ... ... Khandis.	...	27	405 0 0	.....	34	674 0 0	269 0 0	.....	
Divi-Divi seed ... ... Bags.	...	...	.....	18	...	25 0 0	25 0 0	.....	
Total ...	...	...	405 0 0	.....	...	699 0 0	294 0 0	.....	
Central Division of Kánara.									
Grass ... ... Bundles.	180,243	...	563 0 0	134,993	...	420 0 0	.....	143 0 0	
Shigekai ... ... Khandis.	...	1 14 18½	20 0 0	.....	1 16 11½	25 0 0	5 0 0	.....	
Myrabolams ... ... do.	...	...	.....	.....	1 18 27	40 0 0	40 0 0	.....	
Total ...	...	...	583 0 0	.....	...	485 0 0	45 0 0	143 0 0	
Southern Division of Kánara.									
Myrabolams ... ... Khandis.	...	301 14 1	4,945 0 0	.....	433 0 1	8,715—0 0	3,770 0 0	.....	
Shigekai ... ... do.	...	6 10 0	140 0 0	.....	40 7 21	800 0 0	660 0 0	.....	
Total ...	...	...	5,085 0 0	.....	...	9,515 0 0	4,430 0 0	.....	
Belgaum Division.									
Myrabolams ... ... Khandis.	...	30 12 0	405 0 0	.....	140 2 0	2,509 0 0	2,104 0 0	.....	
Dhárwár Division.									
Grass ... ... Bundles.	...	...	.....	143,055	...	175 0 0	175 0 0	.....	
Total, Minor Produce ...	...	...	6,478 0 0	.....	...	13,383 0 0	7,048 0 0	143 0 0	
Grand Total ...	...	...	4,19,307 8 2	.....	...	5,84,843 8 0	1,80,346 7 10	14,810 8 0	

Net difference in favour of the year Rs. 1,65,535-15-10.

Belgaum, 27th August 1892.

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

FORM No. 57 A.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Abstract showing the value of Live and Dead Stock for the year 1891-92.

Description of Dead and Live Stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in Value.		Remarks.
	Number	Value.	Number.	Value.	Number.	Value.	
		Rs.		Rs.		Rs.	
Direction.							
Office tents, old	2	900	1	450	...	450	One was sold for Rs. 90-4-0.
Do.	...	...	1	452	452	...	Newly purchased.
Tools, plant and office furniture ...	...	305	...	339	34	...	
Total ...	...	1,205	...	1,241	486	450	
Northern Division of Kánara.							
Forest bungalow at Haliyál ...	1	2,700	1	2,700	...	...	
Range Forest Office at Haliyál ...	1	900	1	900	...	...	
Forest Nákas	13	10,115	11	3,324	2	6,791	Two of the nákas were transferred to the Sált Department to which they once belonged.
Divisional Forest Office at Haliyál ...	1	350	1	350	...	...	
Forest Bungalow at Kadra ...	1	8,100	1	8,100	...	...	
Kodibág depôt house	1	4,960	1	4,960	...	...	
Hill tent	1	350	1	350	...	...	
Tools, plant and office furniture ...	...	2,932	...	3,082	150	...	
Total ...	...	30,407	...	23,766	150	6,791	
Central Division of Kánara.							
Forest bungalows at Yellápur ...	2	3,050	2	3,050	...	...	
Workshop at Yellápur	1	114	1	114	...	...	
Rest-house at Kolikeri	1	908	1	908	...	...	
Náka houses	14	4,201	17	5,001	800	...	
Old Range Office at Yellápur ...	1	250	1	250	...	...	
Rest-house at Ramanguli ...	1	150	1	150	...	...	
Tent	1	350	1	350	...	...	
Range Forest Office at Ankola ...	1	300	1	300	...	...	
Tools, plant and office furniture ...	...	4,187	...	4,292	105	...	
Buffaloes	...	...	208	6,779	6,779	...	
Carts	...	...	100	3,198	3,198	...	
Total ...	...	13,510	...	24,392	10,882	...	
Southern Division of Kánara.							
Office building at Sirsi	1	1,717	1	1,717	...	...	
Depôt house at Sirsi	1	1,119	1	1,119	...	...	
Forest Nákas	21	6,102	21	6,102	...	...	
Rest-house at Bilki	1	300	1	300	...	...	
Office tent	1	350	1	350	...	...	
Tools, plant and office furniture ...	..	*3,045	...	3,104	59	...	*The difference of Rs. 100 is owing to mistake now rectified.
Total ...	...	12,633	...	12,692	59	...	
Belgaum Division.							
Tent	1	300	1	300	...	...	
Rest-house	1	2,500	1	2,500	...	...	
Nákas	17	7,180	18	7,480	300	...	
Tools, plant and office furniture ...	...	3,374	...	3,942	568	...	
Total ...	...	13,354	...	14,222	868	...	

FORM No. 57 A—*continued.*

Description of Dead and Live Stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in Value.		Remarks.
	Number	Value.	Number.	Value.	Number.	Value.	
		Rs.		Rs.		Rs.	
Dhárwár Division.							
Rest-house	1	800	1	800	...	...	
Watch-houses	9	2,700	9	2,700	...	...	
Tent	1	350	1	350	...	...	
Tools, plant and office furniture ...	...	2,901	...	3,023	122	...	
Total ...	...	6,751	...	6,873	122	...	
Bijápur Division.							
Office tent	1	150	1	150	...	...	
Tools, plant and office furniture ...	...	812	...	812	...	...	
Total ...	...	962	...	962	...	...	
Kolába, Ratnágiri Division.							
Hill tents	2	450	2	450	...	...	
Forest boat with fittings ...	1	300	1	300	...	...	
Tools, plant and office furniture ...	...	2,736	...	2,677	544	3	Two of the leather belts with brass buckles were lost.
Bullock	1	30	...	...	...	30	The bullock was sold.
Total ...	...	2,916	...	3,427	544	33	
Working Plans Division.							
Tents	2	500	2	500	...	...	
Tools, plant and office furniture ...	...	2,131	...	2,721	590	...	
Total ...	...	2,631	...	3,221	590	...	

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

Belgaum, 27th August 1892.

FORM No. 58.

FORM No. 58.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Summary of Revenue and Expenditure of the different Divisions during the year 1891-92.

Budget Heads.	Direction.	North Kánara Division.	Central Kánara Division.	South Kánara Division.	Dhárwár Division.	Kolába-Ratnágiri Division.	Bijápur Division.	Belgaum Division.	Total for 1891-92.	Budget Estimate.
REVENUE.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—Timber and other Produce removed from the Forests by Government Agency—										
a. Timber	.....	2,08,266 4 1	83,298 1 9	14,456 15 1	10,402 5 11	16,753 2 0	.....	21,128 14 11	3,54,305 11 9	7,14,960 0 0
b. Firewood and charcoal	.....	29,240 14 11	385 11 0	589 12 0	10,685 4 0	1,268 5 0	.....	1,98,662 7 10	2,40,832 6 9	3,23,840 0 0
c. Bamboos	.....	.....	10 0 0	.....	.....	.....	.....	19 8 0	29 8 0	.....
d. Sandalwood	.....	706 9 6	2,714 5 0	4,500 8 11	2,575 9 6	.....	.....	589 2 3	9,086 3 2	5,520 0 0
e. Grass and other minor produce ...	.....	30,501 15 0	4,391 8 11	21,439 9 2	984 8 0	38 13 7	.....	80,672 5 2	1,38,028 11 10	1,11,360 0 0
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—										
a. Timber	.....	14,971 15 4	6,957 8 8	17,487 7 7	286 7 0	96,350 11 3	151 5 0	987 9 8	1,37,193 0 6	1,55,010 0 0
b. Firewood and charcoal	.....	17,714 12 8	24,568 5 1	2,451 13 1	789 6 7	22,190 4 0	9,084 0 0	7,713 13 3	84,512 6 8	88,720 0 0
c. Bamboos	.....	26,449 12 0	10,406 13 3	966 6 0	4,820 6 6	0 2 0	5 0 0	5,159 1 9	47,807 9 6	69,150 0 0
d. Grazing and fodder grass	.....	7,376 8 6	7,759 9 6	10,460 12 8	29,222 9 10	2,358 3 6	1,235 0 0	33,074 14 7	91,487 10 7	68,430 0 0
e. Other minor produce	.....	1,638 8 1	5,536 0 0	6,719 8 0	1,661 11 2	1,734 12 9	4,837 12 3	4,855 0 0	26,983 4 3	40,010 0 0
III.—Drift and Waif Wood and Confiscated Forest Produce	.....	181 3 2	6,367 2 0	468 2 8	169 13 1	735 2 5	11 10 6	236 5 0	8,169 6 10	1,790 0 0
IV.—Revenue from Forests not managed by Government—										
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	.....	.....	.....	.....	30 0 0
b. Revenue from shared and private forests	.....	.....	.....	.....	.....	278 11 10	.....	.....	278 11 10	80 0 0
V.—Miscellaneous—										
a. Fines and forfeitures	.....	25 0 0	5 8 0	2 10 1	0 3 9	2,016 7 9	263 14 3	687 8 0	3,001 3 10	1,520 0 0
b. Refunds	5 0 0	294 9 5	14 9 5	4 0 6	13 14 1	221 12 6	.....	65 0 3	618 14 2	50 0 0
c. Other sources	92 4 0	300 4 7	858 1 0	611 13 6	525 14 9	987 3 0	54 10 8	1,937 13 4	5,368 0 10	2,530 0 0
					+1 5 0	+2 8 0			3 13 0	
Total Revenue ...	97 4 0	3,37,668 5 3	1,53,273 3 7	80,159 7 3	60,138 2 2	1,44,933 11 7	15,643 4 8	3,55,789 8 0	11,47,702 14 6	15,83,000 0 0
					+1 5 0	+2 8 0			+3 13 0	

EXPENDITURE.

A.—Conservancy and Works.

I.—Timber and other Produce removed from the Forests by Government Agency—											
a. Timber	.....	1,11,079 7 7	42,134 11 8	1,012 3 6	3,108 14 2	4,135 5 6	.....	3,833 11 9	1,65,304 9 2	2,17,280 0 0
b. Firewood and Charcoal	.....	14,892 0 11	613 14 2	456 5 6	2,717 9 6	6 1 6	181 13 6	88,187 6 0	1,07,055 3 1	1,50,730 0 0
c. Bamboos	.....	.....	5 0 0	.....	.....	.....	.....	10 8 0	15 8 0	.....
d. Sandalwood	.....	143 7 10	208 7 0	145 14 2	27 0 11	.....	.....	225 9 11	1,050 7 10	740 0 0
e. Grass and other minor produce ...	.....	9,006 5 8	1,818 15 0	13,641 8 9	648 1 8	15 10 6	.....	15,550 7 5	40,681 1 0	45,300 0 0
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers ...	.....	614 6 6	635 0 6	867 1 0	1,946 0 4	2,183 4 7	.....	1,725 7 10	7,971 4 9	9,500 0 0
III.—Drift and Waif Wood and Confiscated Forest Produce	.....	13 9 5	12 4 2	27 10 0	5 0 0	16 13 6	1 11 0	21 14 6	98 14 7	280 0 0
IV.—Revenue from Forests not managed by Government—										
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Revenue from shared and private forests	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
V.—Rent of Leased Forests and Payments to Shareholders in Forests managed by Government	.....	.....	.....	.....	.....	5,752 8 1	.....	.....	5,752 8 1	5,000 0 0
VI.—Live Stock, Stores, Tools and Plant—										
a. Purchase of cattle	.....	270 0 0	6,548 5 0	.....	.....	.....	.....	.....	6,818 5 0	8,000 0 0
b. Feed and keep of cattle	.....	53 9 3	4,090 0 9	.....	.....	156 0 0	.....	.....	4,299 10 0	7,200 0 0
c. Purchase of stores, tools and plant ...	.....	3,348 8 2	591 1 8	50 11 0	151 15 0	0 7 6	123 10 4	126 3 6	4,392 9 2	5,750 0 0
VII.—Communications and Buildings—										
a. Roads and bridges	.....	542 0 8	660 3 0	6 6 0	.....	29 3 3	.....	1,422 9 6	2,660 6 5	4,620 0 0
b. Buildings	.....	347 8 10	1,713 12 4	74 2 6	229 2 6	101 10 0	.....	523 7 4	2,989 11 6	6,980 0 0
c. Other works	.....	267 5 9	303 0 0	501 11 5	.....	.....	.....	86 6 0	1,158 7 2	1,800 0 0
VIII.—Demarcation, Improvement and Extension of Forests—										
a. Demarcation	.....	.....	5,329 1 4	1,268 12 10	9 0 0	1,115 3 9	378 14 8	2,396 11 8	10,497 12 3	12,040 0 0
b. Compensation for land and rights ...	.....	.....	.....	595 0 0	.....	.....	.....	622 0 0	1,217 0 0	2,500 0 0
c. Surveys and Working Plans	.....	40,019 10 11	.....	.....	16 15 0	11,121 15 8	11 6 0	.....	51,169 12 7	49,700 0 0
d. Sowing and planting	.....	973 2 1	483 15 10	56 12 6	270 2 6	128 1 0	52 0 8	46 13 6	2,011 0 1	4,730 0 0
e. Protection from fire	.....	10,846 3 3	3,459 1 8	72 8 0	558 7 6	118 0 6	266 1 9	1,366 15 0	16,687 5 8	20,770 0 0
f. Other works	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
IX.—Miscellaneous—										
a. Refunds	.....	.....	.....	.....	.....	.....	.....	.....	.....	400 0 0
b. Law charges	.....	.....	.....	176 10 6	.....	.....	.....	.....	176 10 6	150 0 0
c. Other charges	.....	687 1 7	695 14 9	678 8 2	336 12 5	1,317 14 6	345 15 11	1,344 14 1	5,407 1 5	6,215 0 0
Total, A.—Conservancy and Works ...	.....	1,93,104 8 5	69,302 15 10	19,931 13 10	10,025 1 6	26,198 3 10	1,361 9 10	1,17,491 2 0	4,37,415 7 3	5,59,685 0 0

FORM No. 58—*continued.*

Budget Heads.	Direction.	North Kánara Division.	Central Kánara Division.	South Kánara Division.	Dhárwár Division.	Kolába-Ratnágiri Division.	Bijápur Division.	Belgaum Division.	Total for 1891-92.	Budget Estimate.
EXPENDITURE—*continued.*	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
B.—ESTABLISHMENTS.										
I.—Salaries—										
a. Conservators	15,020 0 0	.....	.....	.....	.....	.....	.....	.....	15,020 0 0	12,000 0 0
b. Superior officers	.....	23,530 11 11	3,000 0 0	9,174 8 3	10,004 15 2	9,130 11 1	5,652 12 8	10,020 0 0	70,513 11 1	62,700 0 0
c. Subordinate Forest and Depôt establishments	.....	17,663 12 2	11,894 14 2	10,682 15 5	12,613 6 11	32,511 10 5	6,785 11 0	21,551 0 7	1,13,703 6 8	1,09,000 0 0
d. Office establishments	6,028 6 5	3,904 6 0	3,186 10 0	2,303 1 6	1,732 0 9	2,819 7 2	857 0 0	2,313 6 3	23,144 6 1	23,616 0 0
e. Deputation and special allowances ...	406 0 0	100 0 0	.....	.....	.....	159 8 3	.....	.....	665 8 3	.....
II.—Travelling Allowances—										
a. Conservators	2,429 14 8	.....	.....	.....	.....	.....	.....	.....	2,429 14 8	2,400 0 0
b. Superior officers	.....	6,324 1 4	1,269 2 5	1,654 10 8	1,896 12 5	2,088 2 11	1,679 0 6	2,526 6 11	17,438 5 2	16,000 0 0
c. Subordinate Forest and Depôt establishments	.....	1,343 5 10	687 0 2	424 13 8	1,178 6 5	1,996 5 6	240 0 0	1,152 13 11	7,022 13 6	6,600 0 0
d. Office establishments	1,895 10 4	1,417 6 11	769 7 1	719 11 6	512 4 11	805 0 0	319 7 9	691 6 10	7,130 7 4	6,750 0 0
III.—Contingencies—										
a. Stationery	1 5 0	163 15 7	361 11 8	343 4 3	162 13 3	486 8 9	109 15 9	325 12 0	1,955 6 3	1,470 0 0
b. Carriage of tents and records	659 0 1	348 6 5	305 15 0	122 4 0	135 4 6	248 12 9	62 10 6	152 14 9	2,035 3 6	2,160 0 0
c. Rents, rates and taxes ...	275 0 0	20 5 0	240 0 0	.....	45 0 0	478 5 2	66 0 0	390 0 0	1,514 10 2	1,430 0 0
d. Pay of Police guards	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Official postage	230 13 0	308 11 0	432 15 0	424 3 0	323 2 0	784 9 0	103 0 0	336 9 0	2,943 14 0	2,530 0 0
f. Sundries	891 4 2	166 9 3	204 9 10	266 11 9	164 5 5	171 4 9	54 1 3 25 0 2	354 12 11	2,298 11 6	2,059 0 0
Payments to officers of other provinces ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, B. Establishments ...	27,837 5 8	55,291 11 5	22,352 5 4	26,116 4 0	28,768 7 9	51,680 5 9	15,954 11 1	39,815 3 2	2,67,816 6 2	2,49,315 0 0
GRAND TOTAL OF EXPENDITURE ...	27,837 5 8	2,48,396 3 10	91,655 5 2	46,048 1 10	38,793 9 3	77,878 9 7	17,316 4 11	1,57,306 8 2	7,05,231 13 5	8,09,000 0 0

No. $\frac{P.}{12539}$.

Forwarded to the Conservator of Forests, Southern Circle, under Section 238 of the Forest Department Code.

Accountant General's Office:
Bombay, 3rd August 1892.

GODREZJI D. PADAMJI,
for Accountant General.

FORM No. 59.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Annual Account Current for the year 1891-92.

	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To Opening Balance ...	.....	.....	By 1. Refunds and Drawbacks—Refunds—		
,, VIII. Assessed Taxes—Income Tax—			Divided Heads, Forest ...	.....	1,693 7 0
Deductions by Government from Salaries and Pensions.	.....	2,562 15 1	,, 11. Forest (as per Summary) ...	.....	7,05,231 13 5
			,, 19. Law and Justice—		
,, IX. Forest (as per Summary) ...	.....	11,47,702 14 6	Jails, District Jails, Contingencies ...	.....	
		+3 13 0	,, Revenue Deposits (Forests) ...	.....	33,460 7 6
,, XII. Interest—			,, Cheques and Bills (Forests Cheque cancelled) ...	.....	2,379 9 4
Interest on Arrears of Revenue ...	.....	126 15 9	,, Advances Recoverable—		
,, I. Land Revenue—			Forest Advances ...	4,13,986 2 1	
Miscellaneous other Items ...	.....	11 6 0	Tentage Advances ...	.....	
,, XXIII. Stationery and Printing—			Objection Book Advances ...	776 0 0	
Stationery Receipts—					4,14,762 2 1
Sale-proceeds of Stationery Boxes ...	1 5 6		,, Cash Recoveries ...	.....	6,737 14 9
Other Press Receipts—					
Government Central Press ...	1 3 6		,, Forest Remittances—	+3 13 0	
	2 9 0	49,508 13 2	Remittances to Treasuries ...	9,61,982 0 2	
,, Revenue Deposits (Forest) ...	.....		Inter-divisional Transfers ...	16,526 3 5	
,, Cheques and Bills (Departmental cheques), Forest ...	.....	6,99,495 1 1	Inter-departmental Transfers ...	196 13 0	
,, Advances Recoverable—					9,78,705 0 7
Forest Advances ...	4,12,789 4 2				+3 13 0
Tentage Advances ...	240 0 0		,, Accounts Current—		
Objection Book Advances ...	749 0 0		,, Account between Bombay and Marine—		
		4,13,778 4 2			
,, Cash Recoveries ...	.....	6,737 14 9	IV. Items adjustable by Marine! Miscellaneous— ...	.....	22,631 7 0
,, Forest Remittances—			,, Account between Bombay and Public Works Department, Bombay—		
Remittances to Treasuries ...	570 12 10		(Ordinary Branches)—		
Inter-divisional Transfers ...	51,258 5 0		IV. Items adjustable by Public Works Department Inter-departmental Charges— ...	.....	3,437 13 0
Inter-departmental Transfers ...	1,022 5 7				
		52,851 7 5	,, Account between Bombay and Public Works Department—		
,, Bombay Uncovenanted Service Family Pension Fund—			(Railway Branch)—		
Widows' Branch ...	.....	184 11 0	Southern Marátha Railway—		
,, Account between India and Bombay—			IV. Items Adjustable by Public Works Department ...	.....	2,04,454 15 1
III. Items adjustable by India—					
Bengal Military Fund ...	.....				
Bengal Military Orphan Fund ...	.....				
Bengal Uncovenanted Service Family Pension Fund ...	23 10 0	23 10 0			
,, Account between Bombay and Public Works Department, Bombay—					
IV. Payments into Treasuries by Civil Officers on account of Public Works Department ...	.....	507 15 10			
			Closing Balance ...	.....	.....
Total ...	.....	23,73,498 6 9	Total ...	.....	23,73,498 6 9

No. $\frac{F.}{12537.}$

Forwarded to the Conservator of Forests, Southern Circle, under Section 238 of the Forest Department Code.

Accountant General's Office:
Bombay, 3rd August 1892.

GODREZJI D. PADAMJI,
for Accountant General.

FORM No. 60—[*Prescribed*].

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Revenue received and Outstandings on account of Revenue during 1891-92.

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	REMARKS.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a p.	Rs. a. p.	
Northern Division of Kánara.	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	1,05,622 3 9	2,04,416 8 10	3,10,038 12 7	2,08,266 4 1	1,01,772 8 6	
	b. Firewood and charcoal	.....	29,244 2 11	29,244 2 11	29,240 14 11	3 4 0	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood...	.....	706 9 6	706 9 6	706 9 6	.....	
	e. Grass and other minor produce ...	852 13 0	29,707 7 0	30,560 4 0	30,501 15 0	58 5 0	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	2,435 11 4	12,717 9 10	15,153 5 2	14,971 15 4	181 5 10	
	b. Firewood and charcoal... ...	13,084 1 7	8,432 3 2	21,516 4 9	17,714 12 8	3,801 8 1	
	c. Bamboos	.....	26,449 12 0	26,449 12 0	26,449 12 0	.....	
	d. Grazing and fodder grass ...	.....	7,376 8 6	7,376 8 6	7,376 8 6	.....	
	e. Other minor produce	.....	1,955 2 9	1,955 2 9	1,638 8 1	316 10 8	
	III.—Confiscated, Drift and Waif Wood ...	5 12 0	181 3 2	186 15 2	181 3 2	5 12 0	
	Total, Northern Division of Kánara ...	1,22,000 9 8	3,21,187 3 8	4,43,187 13 4	3,37,048 7 3	1,06,139 6 1	
Central Division of Kánara.	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	45,932 12 10	64,532 10 4	1,10,465 7 2	83,298 1 9 592 5 6*	26,574 15 11	
	b. Firewood and charcoal	42 5 0	356 15 6	399 4 6	385 11 0	13 9 6	
	c. Bamboos	.....	10 0 0	10 0 0	10 0 0	.....	
	d. Sandalwood...	38 4 0	2,723 13 0	2,762 1 0	2,714 5 0 38 4 0*	9 8 0	
	e. Grass and other minor produce ...	31 8 1	4,362 13 6	4,394 5 7	4,391 8 11 1 12 11*	0 15 9	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	1,425 1 5	8,153 7 8	9,580 9 1	6,957 8 8	2,623 0 5	
	b. Firewood and charcoal	12,171 15 10	28,409 0 1	40,580 15 11	24,568 5 1	16,012 10 10	
	c. Bamboos	.....	10,409 13 3	10,406 13 3	10,409 13 3	3 0 0	
	d. Grazing and fodder grass ...	.....	7,759 9 6	7,759 9 6	7,759 9 6	.....	
	e. Other minor produce	395 11 0	5,620 9 0	6,016 4 0	5,536 0 0	480 4 0	

	III.—Confiscated, Drift and Waif Wood ...	.....			6,626	3	1	6,626	3	1	6,367	2	0	259	1	1
	Total, Central Division of Kánara ...	60,037	10	2	1,38,966	14	11	1,99,004	9	1	1,52,395 632	1 6	2 5*	45,977	1	6
Southern Division of Kánara.	*I.—Timber and other Produce removed from the Forests by Government Agency—*															
	a. Timber	7,578	9	0	12,364	2	1	19,942	11	1	14,456	15	1	5,485	12	0
	b. Firewood and charcoal	.....			589	12	0	589	12	0	589	12	0	.....		
	c. Bamboos	.....			.....			.....			.....			.....		
	d. Sandalwood	.....			4,500	8	11	4,500	8	11	4,500	8	11	.....		
	e. Grass and other minor produce ...	.....			21,439	9	2	21,439	9	2	21,439	9	2	.....		
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—															
	a. Timber	728	10	3	18,223	9	4	18,223	9	4	17,487	7	7	736	1	9
	b. Firewood and charcoal	.....			2,451	13	1	2,451	13	1	2,451	13	1	.....		
	c. Bamboos	.....			966	6	0	966	6	0	966	6	0	.....		
	d. Grazing and fodder grass ...	.....			10,460	12	8	10,460	12	8	10,460	12	8	.....		
	e. Other minor produce	1	11	0	6,877	3	0	6,878	14	0	6,719	8	0	159	6	0
	III.—Confiscated, Drift and Waif Wood ...	.....			468	2	8	468	2	8	468	2	8	.....		
	Total, Southern Division of Kánara ...	8,308	14	3	77,613	4	8	85,922	2	11	79,540	15	2	6,381	3	9
Belgaum Division ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*															
	a. Timber	3,746	1	0	18,319	12	9	22,065	13	9	21,128	14	11	936	14	10
	b. Firewood and charcoal	.....			1,98,662	7	10	1,98,662	7	10	1,98,662	7	10	.....		
	c. Bamboos	.....			19	8	0	19	8	0	19	8	0	.....		
	d. Sandalwood	.....			589	2	3	589	2	3	589	2	3	.....		
	e. Grass and other minor produce ...	.....			80,672	5	2	80,672	5	2	80,672	5	2	.....		
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—															
	a. Timber	.....			987	9	8	987	9	8	987	9	8	.....		
	b. Firewood and charcoal	.....			7,713	13	3	7,713	13	3	7,713	13	3	.....		
	c. Bamboos	.....			5,159	1	9	5,159	1	9	5,159	1	9	.....		
	d. Grazing and fodder grass ...	.....			33,074	14	7	33,074	14	7	33,074	14	7	.....		
	e. Other minor produce	.....			4,855	0	0	4,855	0	0	4,855	0	0	.....		
	III.—Confiscated, Drift and Waif Wood ...	.....			236	5	0	236	5	0	236	5	0	.....		
	Total, Belgaum Division ...	3,746	1	0	3,50,290	0	3	3,54,036	1	3	3,53,099	2	5	936	14	10

* Written off from the accounts under Government orders.

FORM No. 60—*continued.*

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Dhárwár Division	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	1,318 0 0	11,866 5 11	13,184 5 11	10,402 5 11	2,782 0 0	
	b. Firewood and charcoal	.....	10,711 8 0	10,711 8 0	10,685 4 0	26 4 0	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood	17 1 0	558 8 6	575 9 6	575 9 6	.....	
	e. Grass and other minor produce ...	.....	1,009 8 0	1,009 8 0	984 8 0	25 0 0	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	3 12 0	282 11 0	286 7 0	286 7 0	.....	
	b. Firewood and charcoal	.....	789 6 7	789 6 7	789 6 7	.....	
	c. Bamboos	.....	4,820 6 6	4,820 6 6	4,820 6 6	.....	
	d. Grazing and fodder grass ...	.....	29,222 9 10	29,222 9 10	29,222 9 10	.....	
	e. Other minor produce	.....	1,661 11 2	1,661 11 2	1,661 11 2	.....	
	III.—Confiscated, Drift and Waif Wood ...	.....	169 13 1	169 13 1	169 13 1	.....	
	Total, Dhárwár Division ...	1,338 13 0	61,092 8 7	62,431 5 7	59,598 1 7	2,833 4 0	
Bijápur Division	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	.....	.....	.....	.....	.....	
	b. Firewood and charcoal	.....	.....	.....	.....	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ...	.....	.....	.....	.....	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	.....	151 5 0	151 5 0	151 5 0	.....	
	b. Firewood and charcoal	.....	9,084 0 0	9,084 0 0	9,084 0 0	.....	
	c. Bamboos	.....	5 0 0	5 0 0	5 0 0	.....	
	d. Grazing and fodder grass ...	.....	1,235 0 0	1,235 0 0	1,235 0 0	.....	
	e. Other minor produce	.....	4,837 12 3	4,837 12 3	4,837 12 3	.....	
	III.—Confiscated, Drift and Waif Wood ...	.....	11 10 6	11 10 6	11 10 6	.....	
	Total, Bijápur Division ...	.....	15,324 11 9	15,324 11 9	15,324 11 9	.....	

Kolába-Ratnágiri Division. D	*I.—Timber and other Produce removed from the Forests by Government Agency—*																
	a. Timber	.....			16,753	2	0	16,753	2	0	16,753	2	0	.....			
	b. Firewood and charcoal	.....			1,268	5	0	1,268	5	0	1,268	5	0	.....			
	c. Bamboos	.....			.....			.....			.....			.....			
	d. Sandalwood	.....			.....			.....			.....			.....			
	e. Grass and other minor produce ...	.....			38	13	7	38	13	7	38	13	7	.....			
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—																
	a. Timber	2,752	5	10	98,188	5	5	1,00,940	11	3	96,350	11	3	4,590	0	0	
	b. Firewood and charcoal	.....			25,127	12	0	25,127	12	0	22,190	4	0	2,937	8	0	
	c. Bamboos	.....			0	2	0	0	2	0	0	2	0	.....			
	d. Grazing and fodder grass ...	.....			2,394	7	6	2,394	7	6	2,358	3	6	36	4	0	
	e. Other minor produce	.....			1,734	12	9	1,734	12	9	1,734	12	9	.....			
	III.—Confiscated, Drift and Waif Wood ...	.....			1,110	2	5	1,110	2	5	735	2	5	375	0	0	
	Total, Kolába-Ratnágiri Division ...	2,752	5	10	1,46,615	14	8	1,49,368	4	6	1,41,429	8	6	7,938	12	0	
Total of the Circle.	*I.—Timber and other Produce removed from the Forests by Government Agency—*																
	a. Timber	1,64,197	10	7	3,28,252	9	11	4,92,450	4	6	3,54,305	11	9	1,37,552	3	3	
											592	5	6*				
	b. Firewood and charcoal	42	5	0	2,40,833	3	3	2,40,875	8	3	2,40,832	6	9	43	1	6	
	c. Bamboos	.....			29	8	0	29	8	0	29	8	0	.....			
	d. Sandalwood	55	5	0	9,078	10	2	9,133	15	2	9,086	3	2	9	8	0	
											38	4	0*				
	e. Grass and other minor produce ...	884	5	1	1,37,230	8	5	1,38,114	13	6	1,38,028	11	10	84	4	9	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—										1	12	11*				
	a. Timber	7,345	8	10	1,37,977	15	8	1,45,323	8	6	1,37,193	0	6	8,130	8	0	
	b. Firewood and charcoal	25,256	1	5	82,008	0	2	1,07,264	1	7	84,512	6	8	22,751	10	11	
	c. Bamboos	.....			47,810	9	6	47,810	9	6	47,807	9	6	3	0	0	
	d. Grazing and fodder grass ...	.....			91,523	14	7	91,523	14	7	91,487	10	7	36	4	0	
	e. Other minor produce	397	6	0	27,542	2	11	27,939	8	11	26,983	4	3	956	4	8	
	III.—Confiscated, Drift and Waif Wood ...	5	12	0	8,803	7	11	8,809	3	11	8,169	6	10	639	13	1	
	GRAND TOTAL ...	1,98,184	5	11	11,11,090	10	6	13,09,275	0	5	11,38,435	15	10	1,70,206	10	2	
											632	6	5*				

* Written off from the accounts under Government orders.

NOTE.—The revenue under budget heads IV and V is Rs. 278-11-10 and Rs. 8,991-15-10 respectively. This has not been shown in this statement in detail as there are no outstandings against those heads. The total revenue realized during the year is Rs. 11,47,702-14-6 (*vide* form No. 58).

Belgaum, 27th August 1892.

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

FORM No. 61.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Outstandings and Liabilities on account of Contractors and Disbursers for the year 1891-92.

Division.	DEPARTMENT DEBTOR.			DEPARTMENT CREDITOR.			BALANCE DUE.		REMARKS.
	At commencement of year.	Recoveries in Cash and Value of supplies and work done during year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Liabilities).	
Contractors.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
North Kánara ...	.....	71,572 10 11	71,572 10 11	.....	72,800 0 0	72,800 0 0	1,227 5 1	...	
Central Kánara ...	.....	10,995 3 11	10,995 3 11	8,946 14 10	7,692 0 0	16,638 14 10	5,643 10 11	...	
Dhárwár	.....	1,050 7 8	1,050 7 8	.....	1,750 0 0	1,750 0 0	699 8 4	...	
Kolába-Ratnágiri ...	.....	.....	.....	.....	100 0 0	100 0 0	100 0 0	...	
Belgaum	.....	36,093 14 2	36,093 14 2	100 2 2	36,075 1 7	36,175 3 9	81 5 7	...	
Total, Contractors ...	.....	1,19,712 4 8	1,19,712 4 8	9,047 1 0	1,18,417 1 7	1,27,464 2 7	7,751 13 11	...	
Disbursers.									
North Kánara ...	.....	93,838 4 8	93,838 4 8	.....	94,055 14 10	94,055 14 10	217 10 2	...	
South Kánara ...	.....	32,502 13 8	32,502 13 8	2,321 5 1	33,988 0 0	36,309 5 1	3,806 7 5	...	
Central Kánara ...	.....	36,557 6 11	36,557 6 11	1,417 13 7	36,639 2 10	38,057 0 5	1,499 9 6	...	
Dhárwár	.....	19,941 0 0	19,941 0 0	.....	19,941 0 0	19,941 0 0	.....	...	
Kolába-Ratnágiri ...	.....	42,292 7 6	42,292 7 6	439 15 0	42,543 13 7	42,983 12 7	691 5 1	...	
Belgaum	.....	60,481 14 9	60,481 14 9	971 13 6	60,938 1 3	61,909 14 9	1,428 0 0	...	
Bijápur	0 8 0	7,463 0 0	7,463 8 0	.....	7,463 0 0	7,463 0 0	.....	0 8 0	
Total, Disbursers ...	0 8 0	2,93,076 15 6	2,93,077 7 6	5,150 15 2	2,95,569 0 6	3,00,719 15 8	7,643 0 2	0 8 0	
GRAND TOTAL ...	0 8 0	4,12,789 4 2	4,12,789 12 2	14,198 0 2	4,13,986 2 1	4,28,184 2 3	15,394 14 1	0 8 0	

No. $\frac{F.}{12639.}$

Forwarded to the Conservator of Forests, Southern Circle, under Section 238 of the Forest Department Code.

Accountant General's Office :
Bombay, 3rd August 1892.

GODREZJI D. PADAMJI,
for Accountant General.

ANNUAL FORM No. 62.

Forest Department, Bombay, Southern Circle.

Financial results of the year 1891-92.

Division.	Timber and other produce removed from the Forests by Government Agency.		Other Revenue.		Formation, protection and improvement of Forests.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Direction	...	...	97	27,837	...	97	27,837	
Northern Division of Kánara.	2,68,896	1,67,492	68,772	6,509	74,395	3,37,668	2,48,396	
Central do.	97,167	62,477	56,106	7,811	21,367	1,53,273	91,655	
Southern do. ...	41,143	22,307	39,016	14,831	8,910	80,159	46,048	
Belgaum Division ...	3,01,073	1,28,455	54,717	13,724	15,127	3,55,790	1,57,306	
Dhárwár do. ...	22,647	25,682	37,492	8,343	4,769	60,139	38,794	
Bijápur do. ...	...	184	15,643	3,989	13,143	15,643	17,316	
Kolába-Ratnágiri Division.	18,795	22,986	1,26,141	16,569	38,324	1,44,936	77,879	
Total ...	7,49,721	4,29,583	3,97,984	99,613	1,76,035	11,47,705	7,05,231	

Belgaum, 27th August 1892.

R. C. WROUGHTON,
Conservator of Forests, Southern Circle.

No. 116 of 1893.

REVENUE DEPARTMENT.

Belgaum, 9th January 1893.

Forwarded to Government.

2. By Government Resolution No. 8102 of 15th November 1890, the date fixed for the submission of the report to the Commissioner is the 31st October, but the report only reached this office on the 23rd ultimo, when Mr. Charles was in charge, and it was handed over to the undersigned for review, when the latter assumed charge on the afternoon of the 31st. No avoidable delay in submitting the report has thus occurred on the part of the undersigned.

Forest area, paras. 14 to 27.

3. The only districts in which any changes in the forest area were effected during the year under report are Kánara and Kolába. In the former Collectorate about 14 square miles of forest were transferred from "Protected" to "Reserved", the total area remaining unaffected. In Kolába the changes were due to the transfer of the Karjat and Khálápur ranges from the Northern to the Southern Circle which resulted in an addition of 81 square miles and 342 acres to the latter Circle. The total forest area of the whole Circle, on the 1st April 1892, exceeded that on the corresponding date of the preceding year by 81 square miles, $277\frac{3}{20}$ acres.

Forest demarcation and settlement, paras. 28 to 37.

4. Two Forest Settlement Officers were working during the year, one in Kánara and the other in the Belgaum and Dhárwár Collectorates. The subjoined table compares the results of the present and previous years, together with the cost incurred:—

Year.	Area in square miles finally settled and sanctioned.	Cost.	Area for which the field work has been completed, but of which the settlement is still unfinished.	Cost.	Cost per square mile of the settlement finally effected.
		Rs.		Rs.	
1890-91	296·68	6,721	721·79	14,087	22·65
1891-92	26·287	3,750	134·10	19,010	141·7

It may be noticed that while the cost of settlement operations in both the years is nearly the same, the outturn of the year under report was far less than that of 1890-91. If this is due, as seems probable, to the circumstance that the time and attention of Mr. Knight, the Dhárwár Forest Settlement Officer, had to be entirely devoted to revenue and magisterial duties, it is not understood why his salary and allowances should be debited to "Forest".

5. The cost per square mile, during the year under report, was Rs. 141·7, against Rs. 22·65 in the preceding year. Some explanation should have been furnished concerning this extraordinary increase. It may also be pointed out that, whilst the aggregate cost of the settlement and demarcation during 1891-92 is given in paragraph 28 as being Rs. 26,400, the average cost per square mile, mentioned in paragraph 31, is calculated on Rs. 22,760, and no explanation is furnished of the items which have been omitted.

Forest settlement work remaining to be done.

6. The aggregate forest area of 3,093 square miles and 386 acres, given in paragraph 34 as remaining to be dealt with, is, except for Kánara, precisely the same as that stated in paragraph 14 of the report for 1890-91. In Kánara only 26 square miles and 296 acres were settled during the year, and the amount of work which still remains to be accomplished is very large. The Commissioner can add nothing now to the remarks made by him in 1891 in his reports to Government, in which he strongly urged on the consideration of His Excellency the Governor in Council the urgent need, which, in his opinion, existed for the immediate acceleration and

speedy completion of the work of forest settlement in Kánara, and the necessity for the employment of a second full-time Forest Settlement Officer. The work is dragging on very slowly. It will apparently take years, at the present rate of progress, to complete it. In the meantime the interests of the State suffer severely; the forests are in parts being utterly destroyed, the officers of the Forest Department are helpless to prevent infinite injury being done, and the cultivators are being confirmed in their belief, which the Commissioner holds will ultimately be shown to be unfounded, that they have free rights to cut, lop and maim the tree-growths within forest limits.

Chapter II.

Para. 38, Surveys.

7. The topographical survey was continued during the year, and the outturn and its cost are shown in the margin. Here again the cost per square mile was very materially heavier than in 1890-91, but no explanation of this fact is forthcoming in the report.

Year.	Area surveyed during the year.	Total Cost.	Cost per square mile for the 8" scale.
		Rs.	Rs. a. p.
1890-91	343	38,971	83 8 4
1891-92	300	35,138	112 0 0

In paragraph 19 of the report for 1890-91, it was stated that, by the end of the season of 1891-92, the survey work would be completed and the services of the party might be dispensed with. The report under review gives no idea as to how much still remains to be done.

Working plans.

8. It is only in the district of Kánara that some progress has been made in the preparation of working plans. Such plans for 69 square miles have, it is stated, been submitted to Government, and the necessary materials for an additional area of 116 square miles have been got ready. It seems necessary to impress on the Conservator that he should take care, in future, that the parties employed are enabled to carry on work during the entire open season. The requisite number of coolies should have been obtained beforehand, and if one Divisional Officer could only keep pace with the work of a single party, the expediency of the employment of two parties appears open to doubt. It is, however, satisfactory that notwithstanding the difficulties experienced, the cost per acre during the year was only annas 10·6, against annas 12·29 in 1890-91.

9. As desired in paragraph 6 of Government Resolution No. 10056, dated the 22nd ultimo, reports have been called for from the several districts regarding the steps taken for the preparation of working plans.

Chapter III.

Protection and improvement.

10. The only change worthy of notice in connection with the Forest Department establishment is the addition in Kolába of 2 foresters and 60 guards, at an aggregate monthly cost of Rs. 533.

Breaches of the law.

11. These fall under three heads :—

(1) Prosecutions for offences;

(2) Cases dealt with under Section 67 of the Forest Act;

(3) Cases of cattle trespass on Government forests.

Prosecutions instituted, paras. 54 to 63.

12. The number of prosecutions rose from 194 to 346 or by 78 per cent. The subjoined table gives the nature of the offences committed :—

Forest Division and Civil District.		Cases pending from previous year.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorized felling for appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Northern Division of Kánara.	1890-91 ..	..	3	13	1	..	17	17	14	20	3	3	17	23	..
	1891-92 ..	..	3	15	..	3	21	21	10	29	11	11	21	40	..
Central Division of Kánara.	1890-91 ..	1	3	3	..	2	8	9	8	15	1	3	9	18	..
	1891-92 ..	..	3	17	..	..	20	20	16	19	4	4	20	23	..
Southern Division of Kánara.	1890-91 ..	..	..	18	..	..	18	18	7	13	10	30	17	43	1
	1891-92 ..	1	..	103	..	..	103	104	5	6	2	12	7	18	97
Belgaum Division ..	1890-91 ..	9	4	34	3	8	49	58	31	75	21	57	52	132	4
	1891-92 ..	4	1	23	11	1	36	40	27	60	12	31	39	91	1
Dhárwár Division ..	1890-91 ..	..	1	14	..	..	15	15	12	35	3	3	15	38	..
	1891-92 ..	..	..	7	..	..	7	7	6	11	1	1	7	12	..
Bijápur Division ..	1890-91 ..	..	..	9	2	..	11	11	7	15	3	10	10	25	1
	1891-92 ..	1	..	6	2	..	8	9	8	34	..	..	8	34	1
Ratnágiri and Kolába Division.	1890-91 ..	1	1	37	5	33	76	77	67	145	10	63	77	208	..
	1891-92 ..	5	..	142	2	7	151	156	124	396	26	96	150	492	6
Total ..	1890-91 ..	11	12	129	11	43	194	205	146	318	51	169	197	487	6
	1891-92 ..	11	7	313	15	11	346	357	196	555	56	155	252	710	105

13. It will be seen from the above that the increase has chiefly occurred in—

(1) the Southern Division of Kánara; and

(2) the Ratnágiri and Kolába Division, and under the following heads:—

(1) illicit cutting of reserved kinds of trees for ráb;

(2) illicit cultivation of dháli;

(3) pollarding of reserved kinds of trees for soppu.

Under the last head no less than 97 cases were pending on the date of the report in Siddápur, Sirsi, &c. No particulars are supplied as to the gravity of the offences committed and whether they were committed in settled or unsettled forests, but presumably most of the cases occurred in the latter class of forests. In both Siddápur and Sirsi garden cultivation is extensive, and the cultivators habitually encroach on the adjoining Government forest, in a few instances because no betta lands have been assigned, but in most cases because either the existing assignments are alleged to be inadequate, or because by improvident husbandry and through lack of care and foresight the ráb supplies those assignments could yield have become exhausted. In paragraph 60, Mr. Wroughton refers to certain correspondence. Of the three* courses open for the protection of unsettled forests, Government have apparently elected to adopt the first. If so, the appointment of a second Forest Settlement Officer, and the hastening on of the work, seem to the undersigned to be imperatively called for. Kánara is by far the most important Forest District, not only in the Southern Circle, but in the entire Presidency. It contains the largest and much the most valuable forests, and those forests, if duly protected and preserved, will, in years to come, prove far more profitable to the State than they even now are. The Commissioner would, therefore, venture to recommend most strongly that if no Covenanted Assistant can at present be made available for employment as a

*(1). To wait until the settlement is completed (paragraph 10 of the opinion of the Remembrancer of Legal Affairs).

(2). To prevent through the Forest Officers the exercise by the rayats of their claims which they set up, and so compel them to sue Government in order to establish their claim (paragraph 8).

(3). To take the initiative and sue for a decree to have their own proprietary rights declared, and to prevent the rayats from encroaching on or deriving any benefit from the protected forests, except to such extent as may, from time to time, be expressly permitted by Government.

second Forest Settlement Officer, a selected Deputy Collector, possessing the required experience of forest settlement, should be deputed to Kánara in that capacity.

As regards the increase of offences under the other two heads no causes have been assigned, but it was possibly due to increased activity on the part of Forest Officers. That they did not take action on insufficient grounds or through unrestrained departmental zeal is established by the fact that in nearly 80 per cent. of the cases where prosecutions were instituted convictions were obtained; and this must be regarded as constituting a very high proportion.

14. The following table compares the results of the magisterial trials in cases criminally prosecuted during 1890-91 and 1891-92 :—

No.	Divisions.	1890-91.			1891-92.			Percentage of Failures.	
		Cases in which conviction was obtained.	Cases in which conviction failed.	Total.	Cases in which conviction was obtained.	Cases in which conviction failed.	Total.	1890-91.	1891-92.
1	Northern Division, Kánara...	14	3	17	10	11	21	18	52
2	Central do. ...	8	1	9	16	4	20	11	20
3	Southern do. ...	7	10	17	5	2	7	59	28
4	Belgaum Division.	31	21	52	27	12	39	40	31
5	Dhárwár do. ...	12	3	15	6	1	7	20	14
6	Bijápur do. ...	7	3	10	8	...	8	30	...
7	Kolába do. ...	44	6	50	103	19	122	12	16
8	Ratnágiri do. ...	23	4	27	21	7	28	15	25
	Total...	146	51	197	196	56	252	26	22

In the Northern Division of Kánara the percentage of failures was the largest in the Circle, amounting to 52 per cent. as against 18 in 1890-91. In paragraph 62, this result is attributed to the taking into Court of a number of cases of theft of wood in Reserved Forests, in which the offenders refused to pay compensation under Section 67of the Forest Act. This would seem to indicate a certain lack of discretion on the part of the Forest Officers concerned, but as Government have now issued very clear instructions on the subject and have reminded the Collectors of their responsibilities in the matter, such cases are likely to be very few in the future, and further comment on action taken before the issue of those orders is hardly needed. The percentage of failures has also risen in the Central Division of Kánara, in Kolába and in Ratnágiri, but in all the other forest divisions it has decreased, notably in the Southern Division of Kánara.

Cases dealt with under Section 67.

15. In all 804 cases were dealt with under Section 67, as compared with 1,052 in 1890-91. The table at paragraph 64 must be taken along with the Statement 50 B, appearing at page 27. The percentage of cases discharged to cases proved is exceptionally small. That only 4 out of 1,052 in 1890-91 and 1 out of 804 in 1891-92 should have been discharged indicates that either the detective ability of Forest Officers is far above the average, or, as is more probable, that villagers caught *in flagrante delicto* or with overwhelming evidence forthcoming against them prefer,

and not unnaturally, to be dealt with summarily and to pay in the form of compensation a fine of light amount rather than to be put to the trouble and ignominy of being criminally prosecuted before a Magistrate. More than 50 per cent. of the cases compounded fell under the lowest class, *i.e.*, cases in which a fine of a rupee or less was inflicted. It is only when the limit of Rs. 16 is reached that the number of cases compounded becomes very small. The figures for but one year are supplied, and no general conclusion can be drawn; but it seems expedient that in future an addition should be made to Form 50 B, showing in what column the accused who challenged prosecution would have appeared had their cases been compounded.

The fact that there was no appeal to the Conservator of Forests may be deemed a proof that the decisions of the local Forest Officers were acquiesced in. The recent orders of Government provide for examination by Collectors of the Forest Officers' proceedings. In future, therefore, the action of the Forest Officers will necessarily receive greater attention from the Revenue Officers.

Para. 63.

16. As regards the nature of the offences most prevalent in each forest division, Form No. 50 A, which gives the figures for two years, shows that thefts of timber preponderate in Kolába and Ratnágiri, of firewood in Belgaum, and of ráb materials in Kánara and Ratnágiri. The proportion of offences in respect of minor produce to those in regard to timber and firewood is about 1 to 3. On the whole, the Commissioner sees no reason to criticise unfavourably the action taken by the Forest Department in enforcing the Forest Act for the protection of forest property.

3rd head, cattle impounded.

17. The number of animals impounded during the year was 8,726 against 10,306 in the preceding year, the decrease occurring under the head of "closed" forest.

Para. 77, fire protection.

18. The subjoined table shows the results of the measures especially adopted for the protection of forests from fire:—

Year.	Area in Square Miles.			Proportion of failure to area attempted.	Cost.		Protection of area under fire protection to total area of Reserves.
	Attempted.	Failures.	Protected.		Per square mile protected.	Per acre protected.	
1891-92	1,046	25	1,021	2·39	16·14	4·8	53·2
1890-91	1,059	9	1,050	0·8	14·07	4·2	56·
Increase or decrease in 1891-92.	-13	+16	- 29	+1·59	+2·07	+·6	-2·8

There is a small increase in the cost per mile, but part of it is due to the fact that a sum of Rs. 1,056 on account of the operations of 1890-91 was paid during the year under review, and therefore included in the total on which the average is calculated.

The area attempted during the year was almost the same as in 1890-91, but the failures increased from 9 in 1890-91 to 25 in 1891-92. The largest number of fires occurred in the Southern Division of Kánara, some being accidental, whilst others were wilfully caused by persons in order to obtain an early crop of grass. The area, which escaped fire, though no special measures were adopted for its protection, was 3,982 square miles or 74 per cent. of the total forest area, as compared with 4,094 square miles or 79 per cent. in 1890-91. The acreage injured by fire has consequently somewhat increased, but considering that a very large proportion of it was in Kánara, where forest conservancy is more stringent than elsewhere and where the Government forests are interlaced with private holdings, the comparatively small number of fires and amount of harm done points

to the absence of any malevolent hostility towards the Forest Department on the part of the villagers generally.

Grazing.

19. Two sets of rules for the regulation of grazing obtain in the Southern Circle. One applies exclusively to Kánara and the other to the remaining five districts. In three of the latter the operation of the rules had to be suspended, owing to the prevailing scarcity of fodder, and the forests of Kánara were also thrown open to grazing.

20. During the recent scarcity the dearth of fodder was very serious. Whilst grain poured in from all sides by the various railway communications no fodder was introduced from outside tracts. Its importation would have been too costly, and the experiment of 1876-77 had conclusively shown that grass from the Konkan found no demand above the ghâts. The forests of all the above-ghât districts were therefore thrown open, but failed to afford adequate relief, being themselves frequently as arid and grassless as the waste and arable land beyond their limits. The Collector of Kánara was, therefore, ordered to admit outside cattle, *i.e.*, such as were *bonâ fide* driven into Kánara from Belgaum, Dhárwár and Bijápur in search of food and water. No complaints were heard of cattle thus taking refuge in Kánara dying from want of nutriment, and this speaks favourably for the reserve fodder resources of the Kánara forests in years of drought.

Chapter IV.

21. The subjoined table, extracted from Form No. 54, compares the outturn of timber and fuel during the years 1891-92 and 1890-91:—

Description of Timber.	Year.	Quantity.
I. Timber in the rough logs. ...	1891-92 ...	Cubic Feet 309,974
	1890-91 ...	„ 444,373
II. Timber in the rough poles. ...	1891-92 ...	„ 891,643
	1890-91 ...	„ 958,934
III. Sawn or square timber. ...	1891-92 ...	„ 314,093
	1890-91 ...	„ 285,062
IV. Miscellaneous.	1891-92 ...	„ 161,340
	1890-91 ...	„ 17,097
V. Fuel.	1891-92 ...	„ 6,243,815
	1890-91 ...	„ 5,186,919
VI. Sandalwood...	1891-92 ...	Khandis 55-14-17½
	1890-91 ...	„ 61- 1-10
VII. Do.	1891-92 ...	Pieces 964
	1890-91 ...	„ „
VIII. Do.	1891-92 ...	Trees 139
	1890-91 ...	„ „
IX. Bamboos.	1891-92 ...	No. 4,031,476
	1890-91 ...	„ 4,483,824

The total outturn of forest produce exploited during the year was less than in the previous year, except under the unimportant heads Nos. III, IV, and V. It appears, however, from the summary given by the Conservator, that the yield of large teak shows an increase in the Central Division of Kánara and in the Districts of Kolába and Ratnágiri, although in the other forest divisions it fell far short of the results obtained in 1890-91. The decrease was most marked in the Northern Division of Kánara, where the quantity of timber sold was over a third less than the amount which found purchasers in 1890-91, and this falling off was accompanied by a reduction of over 15 per cent. in the price realised per

100 cubic feet. This result is to be regretted, but the reasons assigned by the Conservator in paragraphs 166 and 167 satisfactorily explain how it was produced.

Chapter V.

22. The diminution of the net forest revenue of the Circle during the year amounted to Rs. 2,02,395 as shown in the marginal table. The decrease was mainly due to the limited demand, owing to special causes, for timber and to lessened consumption of wood fuel for locomotive purposes on the railway. With regard, however, to the latter item the Commissioner noticed, when travelling to Belgaum a few days ago, that the engines on the Southern Marátha Railway are now burning wood the whole length of the line from Poona to Belgaum. Formerly coal was consumed on most if not all that length. If, therefore, wood has now supplanted coal on that section, an increased demand for wood fuel may be anticipated with proportionately enlarged receipts. The expenditure for the year was practically identical with that reported for 1890-91. No special comments regarding it seem required.

Year.	Revenue.	Expenditure	Surplus or net Revenue.
	Rs.	Rs.	Rs.
1890-91	13,49,826	7,04,955	6,44,871
1891-92	11,47,707	7,05,231	4,42,476

Chapter VI.

General remarks.

23. The other heads of the report call for no remark. The report has been carefully compiled by Mr. Wroughton, who joined only after the close of the year to which it relates. Mr. MacGregor's administration of the Circle was careful and judicious, characterised alike by an absence of excess of zeal, by a thorough knowledge of the Circle and its forests and Forest Officers, by the enforcement of good discipline, and by the maintenance of friendly relations with the Revenue Department officials.

J. NUGENT,
Commissioner, S. D.

SIND CIRCLE.

No. 1,668 of 1892-93.

From

THE DEPUTY CONSERVATOR OF FORESTS,
SIND CIRCLE,

To

THE SECRETARY TO GOVERNMENT,
REVENUE DEPARTMENT,
BOMBAY.

Deputy Conservator's Office,
Hyderabad, 30th September, 1892.

Sir,

I have the honour to submit herewith the Annual Administration Report of the Sind Forest Circle for the year 1891-92, with its subsidiary Statements.

I have the honour to be,

Sir,

Your most obedient Servant,

W. S. HEXTON,
Deputy Conservator of Forests,
Sind Circle.

Submitted through the Commissioner in Sind.

ANNUAL ADMINISTRATION REPORT OF THE SIND FOREST CIRCLE FOR THE YEAR 1891-92.

CHAPTER I.

Area and Boundaries:

1. The forest area at the annexation was computed to be about 1,30,000 acres. This area was then amply sufficient to meet the requirements of the Province. But great and important changes have taken place since the annexation, and with them greater demands for fuel. On the establishment of the Indus Flotilla, further additions to the forests were made; and large areas were again added to meet the demands made upon the forests for the working of ferries, water-works, and the North-Western Railway. Notwithstanding these additions, the really productive area has been, and is, of fluctuating extent: The river in many places has changed its course; it no longer flows where it once did; and large areas, once annually watered, are now left high and dry, and may be considered incapable of reproduction. Whole forests have been lost owing to erosion; and, as will be seen from the sketch map forwarded, the bunds have cut off the water-supply from over two lakhs of acres, thus rendering reproduction very doubtful.

Original forest area not sufficient to meet increased demands.

When the yield of the forests was in excess of the demand, no very great anxiety as to the future appears to have seized upon the minds of some of my predecessors, and there was no apparent need of the systematic working of the whole forest area. When large additions were made, it was imagined that the supply would still be adequate, and the contractors, eager for profit, cut over the areas most convenient to themselves, without any thought or care for reproduction. The result is seen in the overworked state of many of the riverain forests. But the demands of the Province have so increased and the growth has been so thinned that, without thorough systematic working, the fuel-supply cannot be maintained. I have, therefore, insisted on rotation cuttings throughout the whole of the Divisions, but I find the annual yield to be about one-half of the demand. The forest yield has, therefore, been supplemented by cuttings from the Revenue jungles; but even those will soon begin to show signs of exhaustion, and the supply under existing circumstances will eventually fail.

Indiscriminate cutting has rendered systematic working necessary.

Many of the forest boundaries are advanced much too near to some of the villages. This is not only a source of danger to the forests, but, as was observed by the Commissioner during his recent tour, little room is left for the expansion of cultivated areas. Wherever possible, the unwatered areas in the neighbourhood of villages might be disforested, and, as was pointed out in the Commissioner's letter alluded to hereafter, their places supplied by lands along the river. Some steps have already been taken in this matter. I have selected 24,000 acres in Upper Sind, and proposals have also been submitted to the Collectors of Karachi and Hyderabad for the acquisition of an additional 36,000 acres suitable for forest purposes, and I am quite prepared, should applicants for the land be found, to begin the disforestment of those areas incapable of reproduction.

Forest boundaries too near to villages.

The area of the Sind forests at the beginning of the year was about 6,16,263 acres. Of this, I consider 2,14,772 acres incapable of reproduction owing to a deficient water-supply; and of the remaining 4,01,491 acres, about 3,10,260 acres only can be considered as really productive. I am of opinion that the present area, that is, 6,16,263 acres, is quite sufficient to meet existing demands, if it were all suited so as to be productive, and if it were in systematic working order. But it is not, and I have already informed the Commissioner that, in addition to that already selected, about 1,50,000 acres are necessary in order to place the fuel-supply of the Province beyond the possibility of doubt.

The productive part of forest areas not sufficient to meet existing demand.

I think the time has now arrived when the appointment of a Special Settlement Officer for Sind would be of considerable benefit. He could give without delay the land so urgently needed for forest purposes, and he might, where necessary, revise those forest boundaries which prevent the expansion of cultivated areas.

Forest Settlement Officer urgently required.

2. The subjoined table gives the areas of the forests of the Sind Circle as they appeared on the records of the Conservator's Office on the 31st March, 1892. It shows the additions made by the Divisional Forest Officers on account of new areas acquired by Forest Settlement, together with the deduction caused by disforestment:—

Present area.

Divisions.	Area as it stood on 31st March, 1891.				Area added during the year.				Area excluded during the year.				Area as it stood on 31st March, 1892.			
	Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.	
	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Suare miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.
Sukkur	446	79	1	128	...	...	...	...	...	...	...	...	446	79	1	128
Naushahro	233	342	...	...	...	...	...	...	4	252	...	...	229	90	...	...
Hyderabad	159	594	...	...	...	...	...	...	...	...	...	...	159	594	...	...
Jerruck	151	477	...	117	...	...	...	...	...	...	...	...	151	477	...	117
Total...	991	212	1	245	...	...	...	...	4	252	...	...	986	600	1	245

3. These areas do not agree with those in the reports of the Revenue districts, and attempts to make them do so have failed, because the Survey Records, from which the Collectors' figures are obtained, give the areas of the forests when the original Forest Survey was made 23 years ago. Since then, considerable changes have taken place, and year after year additions and deductions have been made, corresponding with the accretions and erosions on the river frontage. Had these additions and deductions been made after actual surveys, I should now feel inclined to ask the Collectors to adopt my figures, but as I know that they were made on very rough estimates arrived at by Foresters, I consider my figures cannot be relied upon. Mr. Ryan reports that the additions and deductions made this year in the Sukkur Division are fairly accurate, as he personally did some surveying on the river frontage of his forests.

The areas as shown in Forest Records and Revenue Returns do not agree.

4. Owing to constant erosion, there must always be some doubt as to the accuracy of the area of some of our river-side forests, but the discrepancy in the returns of the Forest and Revenue Departments is in some instances so great that I think something should be done to bring them into accord. I would, therefore, suggest (1) that a survey of the whole of the forests should be made by the Sind Survey Department, and, in order to distribute the cost over four years, one Division might be surveyed each year; and (2) that the new River Survey Division of the Public Works Department might be asked to furnish in future the Forest Department with the areas of all the new kachas formed in front of the forests. I could then give my forest areas for incorporation in the Revenue Reports.

A re-survey of forests suggested.

Area excluded during the year.

5. Of the areas shown under column "Excluded, &c.," 1,175 acres were disforested in Deh Shahbeg, Taluka Labdaria, under Government Resolution No. 1,652 of the 4th March, 1891, and 153 acres of land were disforested and transferred to the Public Works Department for the construction of the Pritchard Canal and the Pateji branch of it under Government Resolutions No. 6,744 and No. 4,08,347 dated, respectively, the 30th September, 1891 and the 4th December, 1891. The balance of 1,484 acres of land belonging to the Magsi forests was entirely washed away by the river.

Lands selected for reservation.

6. The lands that have been selected for reservation and notified under Section 4, but the Forest Settlement of which has not yet been completed, are given in the following statement:—

Forests.	Talukas.	Area in acres.		Year in which notified.
Khairwah	Jacobabad.	50	30	1886
Gokalpur	Do.	64	30	Do.
Tarai	Naushahro Abro.	2,349	5	1887
Chango Rahuja	Do.	1,749	35	Do.
Choi	Do.	3,132	20	Do.
Adamji	Do.	4,352	25	Do.
Phohyarai	Do.	743	4	Do.
Masti Khan...	Do.	225	...	Do.
Adulpur	Ghotki ...	1,074	1	1890
Do.	Do. ...	6	36	1892
Kacha Khanota	Hala ...	2,880	...	1890
	Total...	16,634	26	

Kacha lands selected for reservation.

7. Under the orders of the Commissioner in Sind, kacha lands situate on the banks of the River Indus were selected for reservation, the preliminary draft notifications of which under the Indian Forest Act, submitted to the Commissioner through the Deputy Commissioners and Collectors of Districts, were as follows:—

Districts.	Talukas.	Area in Acres.	
		A.	G.
Upper Sind Frontier	Kashmor	23,589	29
Shikarpur	Ghotki	6	36
Hyderabad	Kandiaro	1,594	30
Do.	Hala	24,043	6
Karachi	Manjhand	579	...
Do.	Tatta	1,523	24
	Total...	51,337	5

Kachas.

8. Sind is the land of kachas, and the Indus is the father of them. Whenever the river in its course comes in contact with a stratum of hard earth, its current is at once arrested; the hard clay acts as a groin, and, in conformity with the law of reciprocity of curves, the set of the river is

immediately diverted to some point on the opposite bank. The stream then commences its work of destruction. It eats away the soft earth, and will continue to do so until it is again checked by another stratum of hard clay. At the the same time, it begins to deposit its silt on the side from which it has been forced, thus forming a bank which eventually developes into what is locally known as a kacha. This process of erosion and accretion goes on,—and has been going on for centuries,—every time the river is in flood, and one might, perhaps, be led to suppose that the continual alterations in the set of the river would form as much land as they wash away. But waste and repair are by no means equal. The accretions sometimes remain, and are sometimes washed away again; and experience has shown that only a few of the kachas formed may be expected to remain as permanent accretions. Kachas in their infancy are either mud-banks or sand-banks; if the latter, they are perfectly useless, either for agricultural or forest purposes. All the really productive kachas are of mud, and the Sind forests owe their existence to them. In short, it is only along the banks of the river, or in some depression leading from it, that forest growth is possible. Every one of the Sind forests stands on an ancient kacha, for on the inland side of the forests are still to be traced a series of ridges which once formed the banks of the river. But forests, like kachas, are in danger of destruction by erosion. What the fires of the Presidency proper are to its forests, these erosions are to the forests of Sind, and during the last ten years large forests areas have completely disappeared. Shah Bela, whose area once stood at 13,000 acres, now measures 2,500 acres only. Another, the Kati Nurketi, of over 3,000 acres, now ceases to exist; while in the Naushahro Division, the Khairidara forest, once 13,000 acres in extent, is now represented by two blocks of about 3,000 acres each. These are but a few instances of the losses we have suffered; and to supply them the Department can only look to the acquisition of those kachas which appear likely to become permanent. It is, therefore, with great pleasure that I have to acknowledge the action of the Commissioner in Sind in this matter. He has not only impressed upon the Revenue Officers of the Province the necessity of giving the Forest Department as much land as possible along the banks of the river, but he has also pointed out that it is the duty of Forest Officers to apply for all uncultivated kachas, if they be suitable for forest purposes. Writing to me on the 8th September, 1891, the Commissioner stated—

> "I have called on the Collectors and Deputy Commissioners for returns of kacha lands suitable for forests, and, in view of the exhaustation of the present wood-supply, you should, I think, take early measures for settling with those officers for the reservation of areas all down the river. You should, of course, act in consultation with the Collectors concerned. It is not my wish that kacha lands yielding land revenue should be touched, unless in case of small areas which might interfere with the formation of large blocks. But I am of opinion that before kacha land covered with lai and other jungle is given out for cultivation, suitable and sufficient areas for forests must be reserved. Your efforts should, I think, be concentrated upon lands adjoining the river, inclusive of the Nara Valley, and naturally watered, instead of wasted upon forests incapable of reproduction except at a considerable cost."

The policy indicated in the above extract is an important one, and in my opinion it is the only one that will save the Sind forests from exhaustation. The acquisition of river frontages will alone render the forest area sufficiently productive to meet the ever-increasing demands of the Province, and I have to express my great obligation to the Commissioner not only for the expression of his opinion, but also for the assistance he has rendered me in the acquisition of kacha lands. If Revenue Officers will only act up to the spirit of the above letter, and I am allowed to take up sufficient areas along the banks of the river, I can begin, as applications are made for the land, to

disforest what may be looked upon as the "unable-to-be-watered" portions of our forest areas.

But a kacha appears to be an agricultural tit-bit; the zamindar covets them, and the Revenue Officer is loath to let them slip out of the hands of his own Department. When the Forest Officer applies for them, a similar desire for possession seems to simultaneously enter the mind of the agriculturalist, and the kacha is reported upon as "fit for cultivation," although in many instances the cultivator is too poor to clear it of the growing jungle, and although there may be an abundance of uncultivated land in the immediate neighbourhood. The battle of the kacha then commences. A voluminous correspondence, ending sometimes in a reference to the Commissioner, ensues; sketch maps showing the position of the kacha and reports connected therewith pass between the Revenue and Forest Departments and months frequently elapse before the fate of the kacha is decided.

Now, a kacha in the first year of its existence is generally too low to admit of any kind of cultivation; the second or third year it may, perhaps, be utilised for raising fodder crops, and it is only when a growth of jungle begins to show itself that there seems any probability of its developing into permanent forest. This is the precise stage in the life of a kacha alluded to by the Commissioner in the letter from which I have taken the liberty to quote; and, considering the impossibility of forest growth away from the river, I think it would greatly simplify matters if it were distinctly understood that, until the productive area required for forest purposes is complete, all newly formed and uncultivated kachas should, without question, be handed over to my Department. It is only by the acquisition of such lands that loss by erosion and drought can be made good. While the jungle is growing on the kachas, they afford excellent grazing for cattle, and only along the river can forest and pasture exist side by side. These areas managed by the Forest Department would afford better pasture than land outside forest limits. I shall hereafter allude to the annihilation of many of the former grazing grounds of the Province, and I think that Government should look not only to the annual land revenue, but to the general benefits which the Province derives from its forest areas. There can be no doubt that, far more than railways and irrigation works, far more than schools and police organisation, the weal or woe of a country depends upon the use made of its forests. Timber, fuel and grass are important elements in the economy of a district, quite as important as the cultivation of cereals, yet there is a tendency at the present day to regard the latter as the one thing of paramount importance.

As I have pointed out to the Commissioner, if the dried-up areas are to be disforested and we are to continue to meet the enormous demands made upon us for fuel, we shall require to have our present forests supplemented by a considerable area along the banks of the river; and it is only by the acquisition of permanent kachas that the Department can hope to get land suitable for forest purposes.

Action of the river on forest frontage.

9. The following statement shows approximately the action of the river on the forest frontage during the year:—

Divisions.	Area lost, acres.	Area gained, acres.
Sukkur	1,456	5,698
Naushahro	3,877	1,700
Hyderabad	475	1,657
Jerruck	1,223	...
Total ...	7,031	9,055

10. Rs. 3,667 were spent on clearing those banks which were threatened by erosion, and the material thus collected realised Rs. 4,732. The balance undisposed of at the end of the year is estimated to be worth Rs. 1,518.

Forest area in the Thar and Parkar District.

11. The land selected in the Thar and Parkar District, and mentioned in para. 3 of last year's report, has been notified, and the forest settlement is being carried out by the Assistant Collector attached to the Deputy Commissioner of the District.

My proposals for an establishment to work this area were not approved of by the Commissioner in Sind, because he thought the work would be better in the hands of the Deputy Commissioner of the District. Difficulties, however, appear to have arisen, owing to the want of an establishment, and a call was made upon the Forest Department for assistance, and I was directed to provide the necessary funds. I am still of opinion that this land should be placed under the Forest Department, and an extra establishment given for its working.

Chapter II.

Survey, Working Plans and Annual Operations.

Work of the Surveyor.

12. One of our Surveyors, having obtained an appointment under the Hyderabad Municipality, resigned during the year, and the other has been employed in surveying and mapping kachas for notification under the Forest Act, and his work has been conducted under the supervision of the Deputy Conservator of Forests, Sind Circle, and the Divisional Forest Officers, Sukkur and Hyderabad.

Cutting and cost of compartment lines.

13. During the year, 134½ miles of compartment lines were cut and cleared at an average cost of Rs. 13-5-0 per mile. The details of the work are given in the following statement :—

Area cut up into compartments up to 31st March, 1891.		Area cut up during 1891-92.		Total area cut up into compartments.		Area still remaining to be cut up.
Acres.	Length in miles of rides 20 feet wide.	Acres.	Length in miles of rides 20 feet wide.	Acres.	Length in miles of rides 20 feet wide.	Acres.
		Sukkur Forest Division.				
1,87,479	1,171	8,516	53	1,95,995	1,224	87,924
		Naushahro Forest Division.				
79,004	493	3,760	23	82,764	516	66,698
		Hyderabad Forest Division.				
95,237	483	1,280	7	96,517	490	5,824
		Jerruck Forest Division.				
86,872	478	2,581	30	89,453	508	7,641
4,48,592	2,625	16,137	113	4,64,729	2,738	1,68,087

The task of the Sind Forest Officers.

14. "*To provide working plans for a constantly fluctuating productive area, by which to meet a demand equal to twice the annual yield, and yet ensure reproduction over an area where an equable forest growth is an utter impossi-*

bility." Such is the task set before the Sind Forest Officer, and it is a task by no means easy of accomplishment.

Forest area continually fluctuating and the water-supply uncertain.

For the success of any working plan, two things are absolutely necessary: (1) there must be fixity of forest area, that is, the Forest Officer must know what productive area is really at his disposal; and (2) there must be an assured and evenly distributed water-supply, in order to ensure an equable forest growth. Given these two things, and little difficulty need be experienced in providing working plans for any forest and in carrying them out in their entirety. In Sind, however, both these essential conditions are wanting. The productive area is constantly fluctuating; the Forest Officer may find large areas, upon which he has been depending for a good supply of fuel, lost owing to erosion, for when erosion once sets in, no one can foresee when or where it will end. Then, as to the water-supply. It cannot be said of Sind, as of some parts of India, that the rain comes down as if "the waters that are above the firmament" had decided to stay there no longer. If these waters could be arranged in the manner of a shower-bath, ourselves to pull the string, then forest growth and reproduction would be comparatively easy; but with a rainfall scarcely sufficient to lay the dust, and the whole water-supply dependent on the rise of the river, which may or may not carry its waters to all of the forests, or to a portion only, thus giving great inequality of forest growth, scientific forestry in Sind is by no means an easy task.

Scientific forestry almost imposible in Sind.

Place the cleverest Continental Professor of Forestry in Sind, and say to him "Here, you are in charge of 1,000 square miles of forest, one-third of which is incapable of reproduction; your rainfall is next to nothing, and part of your forest area may or may not be watered by inundation; you must remember that you are liable to lose thousands of acres by erosion, but you must be prepared to supply about double your annual yield, and you must not fail to show a net revenue of between two and three lakhs of rupees. Now, produce your working plans, remembering that in your plans for reproduction and conservancy you must for the time being forget your Continental ideas of grazing, and be prepared to give to villagers the rights and privileges conceded to them by the Revenue Officer; and you must bear in mind that your controlling staff will consist of yourself, one European Assistant and three Native Sub-Assistants." The look of utter despair on the face of the poor Professor and the expressions that would escape his lips, as his position began to dawn upon him, may be better imagined than described. He would be simply staggered. We should hear very little use made of such scientific phrases as "reboisement" and "artificial re-generation:" he would quickly be brought face to face with "the factors of the locality," and he would soon be an authority on "the hygroscopicity of sands." In short, he would find himself surrounded by unlectured-of, unread-of and unheard-of conditions. His beautiful theories, one by one, would be cast to the winds; he would be compelled to feel his way so gradually, and adapt himself so completely to his surroundings, that in a few years his forestry would be of a decidedly empirical character.

Object of, and necessity for, a working plan.

Working plans are undoubtedly necessary for the proper management of a forest, but their object is simply to work the forests to which they apply in such a way that the forests may meet the demands made upon them without waste, and without impairing the supply. Forests, however, are not made for working plans, but working plans for forests; and even under the adverse circumstances attending forestry in Sind, working plans are absolutely necessary, if the forests are to be cut with a view to reproduction, and if complete exhaustation is to be prevented What we have done is this.

Actual operations carried on in the Sind Circle.

We have ascertained as far as possible the actual productive area of each forest, an average acre of which gives a certain yield. The average yield per acre multiplied by the number of productive acres gives the growing stock. From my own observation and experience, and after consultation with the Forest Officers of the Circle, I have ascertained that a 12-years' rotation for fuel is best suited to the Sind forests. The growing stock divided by twelve ought to give the annual yield, and this ought to be the only amount cut; but unfortunately the annual yield is only equal to one-half the demand made upon us. If, therefore, the forests are not to be overworked, that yield must be supplemented by cuttings from the Revenue jungles. We have, therefore, to adapt ourselves to circumstances, and to do the best we can. To make our system workable, each forest has been divided into compartments half a mile square, and work proceeds as follows:—

Before any wood-cutting commences, the Divisional Forest Officers ascertain which compartments are fit for cutting, that is, in which compartments the timber would deteriorate, if left uncut. These compartments are the first ones selected for cutting. The Range Forest Officer enters and selects the youngest, straightest, and most promising trees for the production of timber. From five to ten of such trees are marked and left to grow, the rotation allowed being three cuttings of fuel to one of timber. The clearing of the selected compartment is then proceeded with. The mature timber is cut and removed to the depôts, and what is departmentally known as locomotive and steamer fuel is then taken out; the crooked and useless trees are converted into charcoal; and the thin branchwood is used for fencing. The compartment is then closed to grazing of every kind. It will remain uncut for twelve years; and should the water-supply not fail, there is, as a rule, enough seed in the ground to ensure reproduction. When the new crop is sufficiently strong and beyond danger, buffaloes and cows are admitted. Goats are, of course, excluded until the growth is quite beyond their reach. A goat will do in a few hours more damage than a Forest Officer can repair in as many months; and there is no doubt that each of these little animals destroys every day that it is at large more than its own value. But there is a stage in forest growth when thinning-out requires to be done. At this work the goat is an excellent workman; he will soon give light and room for growth to the young saplings, and he does his work free of charge,—an important point where expense has to be considered.

Such is the working plan at present in operation in the Sind Circle; and if it be carried out systematically, and for any length of time, it may confidently be predicted that the yield per acre will be considerably enhanced.

Cutting formerly in the hands of contractors.

15. For years past, the chief part of the wood-cutting has been done by contractors, who, being allowed to cut over the whole area of a forest, naturally chose to cut the parts near the banks of the river, or the particular railway stations they were called upon to supply. The contractors took whatever came nearest to hand, and left what did not suit them, or what was inconvenient of cutting and carriage. The result is that, while many parts of the forest have been almost denuded of trees, there are other portions which, owing to a want of systematic cutting and clearing in the past, have never yet yielded the slightest return.

Systematic cutting introduced and insisted upon.

16. After a careful inspection of the Sind forests and a study of the rate of growth of the various kinds of trees found in them, I have come to the conclusion that a system founded upon a 12-years' rotation is best suited to produce a regular supply of fuel. With this object

in view, I have divided each forest into compartments of about half a mile square and confined my cutting to as many compartments as would make about $\frac{1}{12}$th of any forest area so divided.

Work of contractors very unsatisfactory. Proposed change.

17. I tried this plan throughout Sind last year, and, where the cutting was done departmentally, it was a success; but when the work was in the hands of the contractors, I am sorry to say, it was a failure. In the Central and Lower Sind forests, the railway fuel contractors did not work satisfactorily in the compartments allotted to them for the year's cutting, and they gave much trouble to the Divisional Forest Officers. It has, therefore, been thought necessary to work the forests systematically by departmental agency from the 1st October next, on which date the present contractors' agreements for supplying locomotive fuel will expire. Application for a temporary establishment to enable this to be done was submitted to Government, but I am sorry to find Government inclined to postpone systematic departmental fellings, pending the re-organisation of the establishments. Circumstances may delay, or even prevent, a re-organisation of the establishments; but the question of systematic felling in Sind cannot be much longer delayed without serious injury to the forests. Although proper conditions were last year inserted in all contracts, and although Divisional Forest Officers did their utmost to enforce those conditions, contractors did not, and would not, clear the compartments set apart for cutting as they should have been cleared. In short, I am of opinion that, if the work is to be done well, it must be done by departmental agency; and as the matter is of such vital importance to the Sind forests, I do hope Government will at once grant me the assistance asked for.

Boundary-marks, &c.

18. The boundary-marks, paths and compartment lines in all forests were found in good condition.

CHAPTER III.

PROTECTION AND IMPROVEMENT.

Section I—Establishment.

Change in, and addition to, the controlling staff.

19. Colonel MacRae having retired from the service in May, 1891, Mr. Hexton was appointed 3rd Grade Conservator of Forests, and held charge of the Sind Circle till the close of the year. Mr. H. L. Napier arrived on January 1st, and was attached to the Sukkur Division.

Divisional Forest Officers.

20. No other changes took place among the superior staff of the Sind Circle; and the charge of the respective Forest Divisions was held by the officers mentioned in the subjoined statement:—

Names of officers.	Division.	From	To	Remarks.
Mr. G. M. Ryan	Sukkur ...	1st April, 1891.	27th July, 1891.	Mr. Ryan was absent on privilege leave for 3 months, and Mr. Hexton held charge during the period in addition to his own.
Mr. W. S. Hexton	Do. ...	28th July, 1891	27th Oct., 1891.	
Mr. G. M. Ryan	Do. ...	28th Oct., 1891.	31st Mar., 1892.	
Mr. Tuljaram	Naushahro ...	1st April, 1891.	Do. ...	
Mr. Shaukiram	Hyderabad ...	Do. ...	Do. ...	
Mr. Neribdas	Jerruck ...	Do. ...	Do. ...	

21. The number of trained Range Forest Officers mentioned in para. 23 of last year's report has increased to four, and a fifth trained officer is expected from the Poona College shortly. Three more have joined the Forest Class.

The trained Range Forest Officers of the Circle.

Section 2.

General Protection and Breach of Forest Laws.

22. A comparative statement for two years, showing the number of cases tried by Magistrates with their result, is given below :—

Cases tried by Magistrates.

Divisions.	Number of cases tried before Magistrates.		Number of convictions.	
	1890-91.	1891-92.	1890-91.	1891-92.
Sukkur	25	11	14	3
Naushahro	15	13	6	9
Hyderabad	14	9	11	8
Jerruck	5	2	5	1
Total ...	59	35	36	21

23. The decrease of 24 cases taken into Court over last year is attributed to the fact that only serious cases were sent for trial, the more trivial ones being compounded under Section 67 of the Indian Forest Act.

Only important cases sent for trial.

24. The proceedings in the case of Muso Bughio, mentioned in para. 27 of last year's report, were revised by the Sadar Court, which directed that he should be re-tried by the Sub-Divisional Magistrate of Sehwan. The latter Magistrate convicted and sentenced Muso Bughio to undergo two months' simple imprisonment and to pay a fine of Rs. 1,000. The accused made an appeal to the Sessions Court of Karachi, which reversed the order of conviction passed by the Divisional Magistrate, and Muso Bughio was therefore acquitted.

Case of Muso Bughio.

25. The number of cases compounded under Section 67 of the Indian Forest Act is given in the following statement:—

Cases compounded under Section 67.

Names of Divisions.	Illicit grazing.		Theft.		Other offences.		Compensation.	
	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.
Sukkur	424	1,276	84	194	1	1	977	1,602
Naushahro ...	219	175	19	40	40	22	282	238
Hyderabad ...	353	483	208	162	...	...	922	1,054
Jerruck	300	377	6	16	12	6	479	524
Total ...	1,296	2,311	317	412	53	29	2,660	3,418

Increase in number of cases caused by excessive drought.

26. Want of fodder, owing to the excessive drought, drove large numbers of cattle-grazers to the borders of the forests, and there appeared an evident desire to get, if possible, free grazing within forest limits. Great vigilance on the part of the Forest subordinates resulted in the detection of an increased number of attempts at surreptitious grazing, hence the increase in the amount of compensation paid.

Rate per case paid as compensation.

27. Last year, I was able to point out a gradual fall in the average compensation paid per case; and it is satisfactory to note that, although there has been an increase in the number of cases, there has been a still further reduction in the average compensation taken per case, the respective amounts being Re. 1-9-7 in 1891 and Re. 1-3-10 in 1892.

Rates paid as compensation under Section 67.

28. The amount accepted as compensation up to Re. 1 and upwards in the cases compounded under Section 67 of the Indian Forest Act is given in the following statement:—

Districts.	Names of Divisions.	Fines inflicted.		
		No. of cases.	Amount.	
Upper Sind Frontier	Sukkur	46	Up to Re.	1
		4	„ Rs.	2
		3	„ „	3
		3	„ „	4
		3	„ „	5
		1	„ „	7
	Total ...	60		
Shikarpur	Sukkur	952	„ Re.	1
		288	„ Rs.	2
		89	„ „	3
		27	„ „	4
		21	„ „	5
		5	„ „	6
		5	„ „	7
		3	„ „	8
		7	„ „	9
		4	„ „	10
		2	„ „	11
		2	„ „	12
		1	„ „	14
		2	„ „	15
		1	„ „	16
		1	„ „	19
		1	„ „	23
	Naushahro	49	„ „	1
		5	„ „	2
	Total ...	1,465		
Hyderabad	Naushahro	56	„ Re.	1
		24	„ Rs.	2
		10	„ „	3
		1	„ „	4
		4	„ „	5
		2	„ „	8
		1	„ „	14
	Hyderabad	390	„ „	1
		73	„ „	2
		28	„ „	3
		15	„ „	4
		28	„ „	5
		4	„ „	6
		3	„ „	8
		4	„ „	10
		3	„ „	15

Districts.	Names of Divisions.	Fines inflicted.	
		No. of cases.	Amount.
Hyderabad—*continued.*	Jerruck	17	Up to Re. 1
		1	„ Rs. 2
		1	„ „ 3
	Total ...	665	
Karachi	Naushahro	67	„ Re. 1
		15	„ Rs. 2
		1	„ „ 3
		1	„ „ 4
		1	„ „ 6
	Hyderabad	42	„ „ 1
		9	„ „ 2
		3	„ „ 3
		23	„ „ 4
		13	„ „ 5
		2	„ „ 6
		2	„ „ 7
		2	„ „ 10
		1	„ „ 15
	Jerruck	242	„ „ 1
		63	„ „ 2
		15	„ „ 3
		10	„ „ 4
		12	„ „ 5
		1	„ „ 6
		1	„ „ 7
		2	„ „ 10
		2	„ „ 20
	Total cases ...	530	

Number of cattle impounded.

29. The number of cattle impounded for grazing in open and closed forests during the year under report is given in the subjoined statement:—

Names of Divisions.	Number of cattle impounded in		Total.
	Open forest.	Closed forest.	
Sukkur	5,584	777	6,361
Naushahro	3,315	3,423	6,738
Hyderabad	2,870	5,375	8,245
Jerruck	1,092	1,406	2,498
Total ...	12,861	10,981	23,842

Section 3—Fires.

Fires, the result of accident rather than of design.

30. Fires have, of course, occurred, and will occur so long as herdsmen roam the jungle, and boatmen encamp on the banks of the river. The castaway remains of a hukah, or the sparks from the cooking fire of boatmen are accountable for many of our conflagrations. It is, however, satisfactory to find that the fires in the Sind Circle bear no comparison whatever to the immense fires of the Presidency proper; and I am inclined to think that they are the result of accident rather than of wilful damage.

A man caught in the act of firing the jungle.

I have, however, to record that, for the first time in the history of the Sind Forests, a man was caught in the very act of firing the jungle. The culprit was a wood-cutter, who, finding some difficulty in approaching a tree he was going to cut, owing to a growth of grass and jungle, took the shortest way of clearing it by setting fire to the grass by which it was surrounded. I am sorry to say that an area of over 300 acres was burnt. The man was ordered to be prosecuted, but the result of the trial is not yet known.

Increase of fires due to excessive drought.

Considering the dryness of our forests and their openness to grazing, it is really surprising, as well as satisfactory, that so few fires take place. The increase, which will be noticed in the subjoined table, is owing to the immense drought and the greater readiness of the grass to take fire.

Number of fires.

31. The following is a comparative statement of the number of fires and the area burnt in each Forest Division :—

Names of Divisions.	Number of fires in		Area burnt, acres in	
	1890-91.	1891-92.	1890-91.	1891-92.
Sukkur	42	85	2,410	3,539
Naushahro	6	3	117	6
Hyderabad	2	7	104	580
Jerruck	2	12	40	3,539
Total ...	52	107	2,671	5,539

Section 4.—Grazing.

Grazing within forest limits.

32. The past year has been a trying one for cattle. The rainfall was abnormally small even for Sind. The hills were destitute of grass, and the inland tracts, once the grazing grounds of the Province, were as bare as a rock. The consequence was that cattle were driven to the banks of the river and the borders of the forests. Never before during my twenty-seven years' service have I seen cattle in so pitiable a condition. I have seen living skeletons chewing dried chips left by the wood-cutters, and devouring with apparent relish shrivelled up blossoms fallen from the trees. From a forest point of view, these animals should have been excluded ; but in their starved condition, exclusion meant death ; and pity compelled what duty forbade me to do. Another such season, and I am afraid that few cattle will remain even for agricultural purposes.

Cattle-grazing is becoming a serious question in both Upper and Lower Sind. The whole character of the country as grazing-ground has been completely changed by the construction of bunds. No doubt, bunds are of great service as protections from floods, and they have rendered material assistance in bringing land under cultivation, but the Forest Officer has cause to view their introduction with suspicion, and the cattle-grazier their construction with feelings of regret. Bunds keep out the floods which once watered the plains, and the result is seen in dried up forests, and the complete destruction of what were once excellent grazing grounds. Greater demands are in consequence made upon our forests for grazing purposes, and just in proportion as grazing increases so does forest deterioration ensue. These remarks are made in no spirit of opposition to the Public Works Department, the value and importance of whose work I readily acknowledge,

but simply to point out how the construction of bunds has effected the grazing-grounds of the Province, and so thrown a large number of cattle into our forests, thus adding to the difficulties of forest conservancy. A bund is no doubt difficult to manage and keep in order, but if the Public Works Department could regulate floods, as well as prevent them, the value of its work would be greatly enhanced. I do not pretend to be an expert in irrigation matters, but seeing as I do every year the effect on the country caused by the construction of bunds, it has often occurred to me whether it would be possible to introduce some system of sluices whereby grazing grounds might be preserved and our forests saved from destruction.

The question of free grazing is a matter for serious consideration, for, what has been granted as a privilege is now frequently demanded as a right. It is necessary to remember that there were no grazing rights in the days of the Amirs, for had there been, they would be found connected with the forests which existed at annexation. Such, however, is not the case; for of the present revenue derived from grazing nearly the whole is collected for the use of the ancient forests. The right of free grazing has been introduced by our Settlement Officers, no doubt with the very best of intentions, but I am of opinion that, in many instances, the Settlement Officer has been far too liberal in granting grazing privileges within newly acquired forest land. Scarcely a single piece of new land is ever acquired by the Forest Department without its being saddled with such privileges; and I am afraid there would be little chance of getting the land in question, unless I agreed to the rights and privileges proposed by the Settlement Officer. In one instance mentioned in last year's report, where the right of grazing had been given to the inhabitants of twenty villages, I find that a gradual migration from excluded villages to the more favoured ones is taking place. Again, in the Kashmor taluka, on the boundary of the Bahawalpur State, where the people are of the same race, caste and occupation, I found that, while over the border grazing fees are demanded, the inhabitants in British territory are demanding free grazing.

From a forest point of view, cattle grazing is an evil. Much damage, often difficult of detection, is caused to forest growth by herdsmen in charge of cattle, and it would be well if Settlement Officers would remember that a grant of free grazing not only adds to the work of the Forest Officer, but deprives the State of revenue to which it is legally entitled. When land is taken up by the Forest Department, the grazing improves, and I think it only right that it should be paid for. I hope my remarks will not be misunderstood. I would give as many privileges to the poor of a village or the cultivators of a district as they deserve and as is consistent with my duty as a Forest Officer, but there is a limit, and I am of opinion that the right of grazing in newly acquired forest land should be sparingly conferred. Continental methods of sylviculture are frequently held up as models for imitation. Would that Continental rules as regards grazing were considered of equal importance! In France, "no right to pasture any kind of animals can be exercised in any part of a forest, not declared out of danger by the Forest Department, which has also the power to limit the number of animals to be admitted and the period during which they may graze, with reference to the condition of the forest and the quantity of grass in it. Right-holders can only pasture animals which they keep for their own use, not those kept for sale." Comment on the above is superfluous.

Free grazing within forest limits.

33. The following number of cattle grazed free under the Forest Settlemet Officer's proposals :—

Buffaloes	2,261
Cows	13,199
Donkeys	148
Horses	180

34. A very vague idea appears to exist in the minds of many villagers respecting the meaning and application of the terms "a right" and "a privilege." A right may be claimed, and, when once allowed, cannot be taken away without a breach of faith; but a privilege, although granted, may be withdrawn at the will of the giver, should circumstances require it. There is perpetuity connected with the one, but the power of withdrawal associated with the other. Unfortunately, these two terms have got very much mixed, and what has been granted as a privilege is now looked upon, and frequently demanded, as a right.

Rights and privileges.

The procedure to be followed in forest settlements is distinctly pointed out by the Inspector-General of Forests in his memorandum dated 27th April 1887. He states:—

> "There is nothing in the Forest Act which justifies Forest Settlement Officers in providing for the proscriptive wants of non-existing settlers, or for a future and possibly more numerous generation; nothing which permits the concession by a Forest Settlement Officer of more extensive rights than those which he finds to exist at the time of settlement. The rights claimed must be actual existing rights, vested in an individual or person, or in a definite body of persons, such, for instance, as co-owners, or a village community. But they must be existing and vested in some person or persons who can claim them at the time of settlement. A prescriptive right, to exist at all, must be proved to have been regularly exercised in the past, and in no case can a prescriptive right over any forest be held to have been acquired by the continuous purchase of its produce from its owner, the element of adverse enjoyment, or of enjoyment as a right, on which prescription rests, being wholly wanting."

A caution is given to the Forest Settlement Officer in the following terms:—

> "If the Forest Settlement Officer is permitted to provide for the indefinite proscriptive want of an indefinite proscriptive number of right-holders, he may be providing for the gradual absorption and final extinction of the actually existing "rights of the State."

This seems clear enough; actually existing rights only are to be considered. To rights, as right, I have nothing to say. It is the duty of the Settlement Officer to ascertain what the rights of the people actually are in accordance with the ordinary law, and to place them on record; but it is not the duty of the Settlement Offier to record what he thinks those rights ought to be in order to please them.

The history of the Sind Forest Department shows that the *Shikargahs* or hunting ground of the Amirs were State domains, unincumbered by any rights. When therefore, the lands passed into the hands of Government, and were treated as forests, no claims for free-grazing, free supplies of wood, or any other forest rights were recognized, nor were any made. When Captain Hamilton was Ranger in 1856 and 1857, large additions were made to the Forest area. In many cases, persons in possesssion of land were turned out without compensation. Some of the ousted persons afterwards applied for compensation, and an enquiry into their claims was instituted. Many of the claims were settled by money-payments, but in 29 cases, it was found necessary to allow to the claimants land for cultivation within forest limits. The area thus encumbered with rights was, however, only 3,830 acres. Within the limits of the lands thus allotted, occupants were allowed to cultivate on payment to the Forest Department; but occupancy of these lands carried with it no right to grazing or supplies of firewood from the

surrounding forest. It may, therefore, be stated as a fact that all existing rights connected with the Sind-Forests have been granted by the Settlement Officers since the annexation; and it cannot be questioned that the granting of these rights has considerably fettered the hands of the Forest Department and deprived Government of revenue to which it is justly entitled. When Government acquires land for either railway or canal purposes the question of right is speedily disposed of. Why should it be different when it acquires land for forest purposes? On a railway and a canal nothing is grown that can be appropriated, but with a forest it is different. Villagers see an annual present dangling before their eyes, and experience has shown that it is possible to seize it. The prevailing idea in Sind appears to be that, because a person happens to live near a forest, he must have some kind of claim upon its produce. It might as well be argued that a man is in some way or other entitled to an annual supply of liquor from the Abkari Department, because he lives next door to one of its distilleries. It is well known how these claims to forest produce originate, and how the machinery is set in motion to accomplish what is little short of a robbery of State property. The claims to forest produce require very careful examination; for it should be remembered that the settlement of forest land under Chapter II of the Forest Act is a step which fixes for ever the respective rights of Government and private persons over the land. But rights have been so easily acquired, and so liberally conferred in the past that villagers believe they have only to make a demand, get it backed-up by some subordinate official, to shout long enough and loud enough and they will gain their object. Section 18 of the Forest Act gives the Forest Department power to be represented at any enquiry at which the question of rights over newly acquired forest land is considered, and had I either a personal assistant or a sufficient controlling staff, I should certainly depute some officer to represent the Forest Department on such occasions. The legal standing conferred upon such a representative by the Act, his power to cross-examine witnesses who support claims, produce witnesses to rebut claims, comment on documents or evidence, and, if he desires, to prefer an appeal against any decision, to demand from the Settlement Officer a certified copy of such decision, would, I am convinced, result in fewer claims being brought forward and certainly in fewer rights being conferred. For instance, the right, not privilege, of free grazing in the forests of the Rohri taluka, covering an area of a little over 14,000 acres, has been given to the inhabitants of 73 villages. It would be interesting to know by what evidence these persons established their claim. I hope I shall not be misunderstood in this matter. I would be as liberal as is consistent with my duty to the State; but when a privilege granted is looked upon and demanded as a right, then as a Forest Officer I put my foot down and say "No! Under certain circumstances, we may "be able to assist you to thorns, dead wood, grass in times of necessity, and "even timber for agricultural purposes; but you must distinctly understand "that these things are given you as a favour and not as some-"thing which you can demand. Circumstances may prevent us from "assisting you at all; but what can be spared, we will give you, but not as "a right. We will assist you in a reasonable manner, but our assistance will "depend upon your behaviour. In case of any injury to the forests, or "abuse of the privileges given you, we shall hold you jointly responsible, "and we shall withhold the privileges we have granted you."

Many of the Sind forests now require very careful nursing, and the sooner villagers are made to understand that living near a forest gives no claim upon its produce, and the sooner they are taught the difference between a privilege and a right, the better will it be for the property of the State. To expect freedom from fire, and absence of damage in a forest to which the inhabitants of twenty villages have the right of grazing, is to expect an utter impossibility. What should, or should not, be given is a matter solely affecting Government, and it must be determined by the exigencies of the situation. What can or cannot be spared, and which forests can or cannot meet the demands made upon them, are things known only to the Forest

Department, which, acting through the Commissioner of the Province, has never yet failed in its duty.

It is well known that certain persons take a delight in misrepresenting the actions of the Forest Department, and in holding it up as inimical to the agricultural classes. No doubt the interests of the two are diametrically opposed to each other. The duty of the one is to preserve, and the desire of the other is to appropriate; and such a diversity of interest must necessarily produce a certain amount of friction. Without proper restriction, forest conservancy is little better than a sham; and is it for one moment to be supposed that persons possessed with a desire for appropriation can love a department which prevent them from satisfying their desire? It would be absurd to think so.

The fact is a forest is a thing to be plundered, and plundered it will be if villagers get the opportunity. As the guardian of a valuable State property, it is the duty of the Forest Department to prevent that property from being appropriated to the use of those who have no legal right to it. It is its duty to protest against the creation of rights, and the granting of privileges which deprive the State of an annual revenue; and it is its duty to point out that the present system of conferring rights and granting privileges has hampered, and still hampers, proper forest conservancy.

Personally, I would assist the cultivators by every means in my power. I would find them employment in wood-cutting during the season when they are not engaged on their lands; I would hire their bullocks for wood carrying when the animals are not required for agricultural purposes; and the records of my department show that liberal concessions, both as regards grazing and timber, have always been granted in deserving cases, and in times of emergency. But, as a Forest Officer and a servant of the State, I feel it my duty to enter a protest against the idea which exists, and which is still spreading, that, because a person happens to live in the vicinity of a forest, he must necessarily have some claim to part of its produce.

Section 5.

Natural reproduction.

35. Little could be done last year in the shape of natural reproduction. A dry season is always detrimental to forest growth, but the drought during the year under report was so great that large numbers of goats and cattle from the hills entered the forests, and the grazing was so close that nearly all the seedlings, except those in actually closed compartments, were destroyed. It was with great difficulty that even the seedlings in closed compartments were saved. The temptation to open a fence was very great, and it was only by the greatest vigilance that the subordinates of the Forest Department were able to protect the natural growth of the compartments which had been closed for reproduction. Foreseeing that such would be the case, the temporary establishment for which I applied included 50 watchers, but up to the time of writing the sanction of Government for their employment has not been received.

A bad year for natural reproduction.

Section 6.

Artificial Reproduction.

36. All attempts to introduce exotics into Sind have resulted in a series of failure. Many efforts, extendidg over a period of thirty years, have been made by the Forest Department to add to the number of species of the Province, but not a single species has been introduced. The cause is not far to seek. In Sind, there is scarcely any rain, the whole yearly water-supply being derived from the inundation. The seeds of most of the trees which have been tried germinate, but the young plants appear to be quite unable to survive the total submersion to which they are subjected during the inundation season.

Artificial reproduction a failure in Sind.

Section 8.

Communications and Buildings.

Repairs to buildings, &c.

37. All necessary repairs to existing Government buildings have been excluded. A few temporary sheds have been erected for the accommodation of the Range Forest Officers of the Circle.

38. No expenditure was incurred in making and repairing roads.

CHAPTER IV.

Yield and Working.

Section I—Departmental Operations.

Working of Departmental Depôts.

39. The following is the detail of the respective departmental depôts:—

Depôts.	Stock on hand on 1st April, 1891.			Added during the year.			Disposed of during the year.			Balance on 31st March, 1892.		
	Timber.	Post and Rafters.	Fuel.	Timber.	Post and Rafters.	Fuel.	Timber.	Post and Rafters.	Fuel.	Timber.	Post and Rafters.	Fuel.
	C. ft.	No.	Mds.	C. ft.	No.	Mds.	C. ft.	No.	Mds.	C. ft.	No.	Mds.
Shikarpur	...	...	...	524	10,052	..	494	6,568	...	30	3,484	...
Sukkur	782	74	150	15,472	40,452	200	12,039	29,266	350	4,215	11,260	..
Rohri	70	9	...	2,399	11,073	...	1,425	10,798	...	1,044	284	..
Larkana	68	...	2,400	...	...	5,355	19	...	7,455	49	...	300
Sehwan	...	289	...	...	7,751	...	...	8,038	...	...	2	...
Keti Bander	22	...	1,000	21,415	...	250	21,140	...	...	297	...	1,250
Kotri	...	...	13,498	1,536	510	1,87,383	1,536	510	1,90,223	...	...	10,653
Hyderabad	72	14,879	13,913	3,380	1,66,574	1,10,134	3,380	1,32,049	1,18,672	72	49,404	5,375
Total	1,014	15,251	30,961	44,729	2,36,412	3,03,322	40,033	1,87,229	3,16,705	5,707	64,434	17,573

Sales at the various Depôts.

40. The quantity of timber and fire-wood sold at each depôt is given below:—

Depôts,	Timber—C. ft.		Posts and Rafters—No.		Fire-wood—Mds.	
	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.
Shikarpur	1,093	494	11,038	6,568	189	...
Sukkur	13,109	12,039	20,296	29,266	719	350
Rohri	906	1,425	9,762	10,798	...	...
Larkana	16	19	60	...	2,324	7,455
Sehwan	...	...	7,361	8,038	...	...
Keti Bander	7,127	21,140	...	...	250	...
Kotri	344	1,536	...	510	1 44,937	1,90,228
Hyderabad	11,189	3,380	1,61,486	1,32,049	69,883	1,18,672
Total ...	33,784	40,033	2,10,003	1,87,229	2,18,302	3,16,705

There has been a decrease in the sale of timber at nearly all the Depôts. This is due to the import from the Upper Indus Valley of chil and deodar, which, being sawn timber, is in great demand at Shikarpur, Sukkur and Hyderabad. The increase in the sale of nearly 14,000 cubic feet at the Keti Bandar Depôt is due to the demands made by indents from the Ordnance Factory, Bombay. At Hyderabad, the increased sale is accounted for by the requirements of distilleries, cotton-gins, steam engines, and brick kilns.

Material cut from private forests, &c.

41. The following statement exhibits the forest material cut from private forests and unoccupied Government waste numbers and Jagirs, and imported for sale into the towns of Hyderabad and Kotri during the year under report :—

Towns.	Babul logs.	Posts and Rafters of all kinds.	Firewood.	Charcoal.	Babul bark.	Lac.	Planks.	Reed.	Estimated value.
	No.	No.	Mds.	Mds.	Mds.		No.	Bundles.	Rs.
Hyderabad	5,403	36,258	1,68,897	3,922	23,533	465	412	460	20,835
Kotri	646	65,350	49,209	205	3,758	...	158	1,150	5,119
Total ...	6,049	1,01,608	2,18,106	4,127	27,291	465	570	1,610	25,954

Timber supplied to Railway and other Departments.

42. The following statement shows the quantity of timber supplied to Railway and other Departments :—

Names of Departments.	Babul logs.	Babul sleepers.	Babul posts.	Posts and Rafters of all kinds.	Babul bolsters.
	No.	No.	No.	No.	No.
North-Western Railway	20	3,305	510	...	321
Executive Engineer, Sharig	180	...	330	...	...
Harbour Works	...	310	...	...	...
ublic Works	3	...	...	8,582	...
Gun Carriage Department	1,067	...	...	...	...
Total ...	1,270	3,615	840	8,582	321

Fire-wood supplied under Departmental agency.

43. The subjoined statement shows the quantity of firewood supplied under Departmental agency to the State Railway and other Departments and to large consummers for two years :—

To whom supplied.	Firewood in Maunds.	
	1890-91.	1891-92.
North-Western Railway	16,98,751	18,63,527
Hyderabad-Umarkote Railway	...	14,600
Commissioner's Steamer "Jhelum" ...	15,750	21,450
Indus Ferry Steamers	68,390	57,675
River Conservancy Department	6,682	6,625
Public Works Department	1,059	28,200
Karachi Harbour Works	50,139	64,900
Commissariat Department	61,640	98,906
Hyderabad Water Works	54,000	67,438
Sukkur Municipality	6,965	10,500
Hyderabad Jail	3,297	2,718
Government Farm, Hyderabad	9,150	13,750
Nawab of Bahawalpur's Steamer	...	4,244
Seth Vishindas, Contractor	...	43,699
	19,75,823	23,01,232

Timber felled Departmentally.

44. A statement showing the quantity of timber felled departmentally and disposed of in the forests to private purchasers is given below :—

Divisions.	Timber.	Bahan posts.	Babul posts.	Bahan rafters.	Jhau rafters.
	C. ft.	No.	No.	No.	No.
Sukkur	1,955	...	354	8	...
Naushahro	2,574	...	26	...	451
Hyderabad	1,623	50	...	300	...
Jerruck	4,465	...	...	...	...
Total ...	10,617	50	380	308	451

SECTION 2.

REMOVAL OF PRODUCE BY PURCHASERS.

Value of timber and firewood removed other than that removed under the permit-pass system.

45. The following statement exhibits the value of timber and firewood removed from the forests, other than that removed under the permit-pass system, for two years :—

Divisions.	Timber.		Firewood.	
	1890-91.	1891-92.	1890-91.	1891-92.
Sukkur	5,939	5,972	828	1,204
Naushahro	701	963	86	466
Hyderabad	1,547	908	2,742	2,480
Jerruck	766	629	320	329
Total ...	8,953	8,472	3,976	4,479

Comparative statement of receipts at the various Ghats and Nakas.

46. The following is a comparative statement showing receipts from the different ghats and nakas in the Sind Circle :—

Divisions.	Ghat.	Revenue realized in	
		1890-91.	1891-92.
Sukkur	Rahuja, Jhali, Rohri	10,894	9,929
	Saddar, Stewart, Khura	10,449	11,523
Naushahro	Larkana	2,309	2,309
	Garhi Yasin	1,032	938
Hyderabad	New Fuleli, Old Fuleli, Hajipur	1,134	1,168
	Total Rs. ...	25,818	25,867

47. It is to be regretted that for the last three years, there has been a gradual decrease in the receipts of the Sukkur Division. This has received the most careful attention of the controlling staff, but all attempts to increase the receipts have failed. It is stated that passes issued by the Revenue Department cause fewer people to go to Government forests for fuel. It would, however, be interesting to know whether the decrease in the receipts of the Forest Department has been met by a corresponding increase in those of the Revenue Department.

Decrease in receipts in the Sukkur Division.

Section 3.

Free grants.

48. Free grants of timber to the value of Rs. 1,294-7-0 were made for building and repairing houses and temples during the year against Rs. 1,773-8-1 in the preceding year.

Section 4.

Summary of Produce.

Timber extracted from forests by departmental agency.

49. The quantity of timber extracted from the forests by departmental agency is given below :—

Names of Divisions.	Timber, cubic feet.		Posts, No.		Rafters, No.	
	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.
Sukkur	15,423	15,913	7,314	8,615	34,212	38,385
Naushahro	677	2,609	236	534	5,000	7,955
Hyderabad	17,623	22,587	2,975	5,083	1,40,961	1,13,200
Jerruck	11,599	21,415	2,000	8,950	19,500	28,600
Total ...	45,322	62,524	12,525	23,182	1,99,673	1,88,140

Quantity of timber cut and removed by purchasers.

50. The following is a comparative statement for two years of the quantity of timber cut and removed from the forests by purchasers :—

Divisions.	Timber, cubic feet.		Posts, No.		Rafters, No.	
	1890-91.	1891-92.	1890-12.	1890-91.	1890-91.	1890-91.
Sukkur	5,441	5,729	63	770	55,298	57,677
Naushahro	1,242	1,687	191	...	11,219	32,425
Hyderabad	4,139	2,216	718	950	10,141	8,094
Jerruck	1,183	471	5,007	3,585	4,185	13,169
Total ...	12,005	10,105	5,979	5,305	80,843	1,11,365

Yield of timber in each Division.

51. The total yield of timber in each Division is given below for two years :—

Divisions.	Timber, cubic feet.		Posts, No.		Rafters, No.	
	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.
Sukkur	20,864	21,642	7,377	9,385	89,510	96,062
Naushahro	1,919	4,296	427	534	16,219	40,380
Hyderabad	21,762	24,805	3,693	6,033	1,51,102	1,21,294
Jerruck	12,782	21,886	7,007	12,535	23,685	41,769
Total ...	57,327	72,629	18,504	28,487	2,80,516	2,99,505

Yield of firewood in each Division.

52. The total yield of firewood in each Division is as under :—

Divisions.	Firewood in Maunds.	
	1890-61.	1891-92.
Sukkur	13,58,767	14,29,661
Naushahro	5,08,653	5,00,822
Hyderabad	5,55,810	8,34,662
Jerrück	3,17,670	2,42,882
Total ...	27,40,900	30,08,027

Yield of charcoal.

53. The total yield of charcoal is given in the following statement :—

Divisions.	Charcoal, Maunds.	
	1890-91.	1891-92.
Sukkur	674	1,486
Naushahro	5,539	9,896
Hyderabad	2,873	4,886
Jerruck	44,474	42,409
Total ...	53,560	58,677

Yield of timber, firewood and charcoal in cubic feet.

54. The total yield of timber and firewood and charcoal in cubic feet is given in the subjoined statement :—

Divisions.	Outturn in cubic feet.			
	Timber of all kinds.		Firewood and charcoal.	
	1890-91.	1891-92.	1890-91.	1891-92.
Sukkur	73,340	77,824	74,82,398	77,77,487
Naushahro	19,651	29,368	26,79,141	34,58,707
Hyderabad	1,00,362	90,665	32,16,055	47,05 505
Jerruck	33,501	41,873	17,47,655	19,84,562
Total...	2,26,854	2,39,730	1,51,25,249	1,79,26,261

Total yield of timber, firewood and charcoal.

55. The total yield of timber firewood, and charcoal is given in the following statement:—

	1890-91.	1891-92.
Timber	C. ft. 57,327	72,629
Posts	No. 18,504	28,487
Rafters	No. 2,80,516	2,99,505
Sleepers	No. 1,328	3,626
Firewood...	Mds. 27,40,900	30,08,027
Charcoal...	Mds. 53,560	58,677

Revenue from minor produce.

56. The realisations by the sale of farms for removal of minor produce and the right to fish in the forest waters is given below for two years:—

Divisions.	Babul pods.		Lac.		Munj and sar grass, &c.		Fishery.	
	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.
Sukkur	457	424	...	...	887	1,034	2,428	1,848
Naushahro	3,227	1,954	...	...	562	729	928	1,033
Hyderabad	10,113	8,296	1,730	2,372	82	161	570	644
Jerruck	3,019	3,893	...	205	...	...	353	405
Total...	16,816	14,567	1,730	2,577	1,531	1,924	4,279	3,930

In the Sukkur Division, there was a falling off in the revenue derived from fisheries. This is accounted for by fewer depressions being left full of water last year.

In the Naushahro Division, there was nearly a total failure in the babul crop, hence the falling off in the revenue.

Revenue from grazing.

57. The revenue from grazing dues in each Division is given below :—

Divisions.	Grazing Fees.	
	1890-91.	1891-92.
Sukkur	16,384	17,133
Naushahro	9,748	10,151
Hyderabad	16,697	16,825
Jerruck...	14,046	14,891
Total...	56,875	59,000

The increase in the grazing fees is due to the cause pointed out in para. 32 on grazing.

Area of cultivated land within forest limits.

58. The area under cereal cultivation and the amount realised by assessment in each Division is given in the following statement :-

Divisions.	Area under cultivation.				Amount realised by assessment.			
	Kharif.		Rabi.		Kharif.		Rabi.	
	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.
Sukkur	661	250	2,607	1,877	1,196	582	10,212	8,012
Naushahro	522	364	3,736	3,977	1,501	1,017	10,750	11,937
Hyderabad	436	247	1,449	1,060	972	791	2,685	2,313
Jerruck	797	788	378	379	2,511	1,916	491	832
Total...	2,416	1,649	8,170	7,293	6,180	4,306	24,144	23,094

The decrease under this head is due to the efforts made to decrease the area under cultivation within forest limits.

CHAPTER V.

Financial Results.

59. The total receipts, expenditure and net revenue for the past two years are given in the subjoined statement :—

	Actuals, 1890-91.	Actuals, 1891-92.	Increase.	Decrease.
Receipts.	6,80,892	7,74,210	93,318	.....
Expenditure.				
A. Conservancy and Works.	3,21,635	4,10,390	88,755	.....
B. Establishment	91,566	91,546	.....	20
Total Expenditure...	4,13,201	5,01,936	88,735	.....
Net Revenue...	2,67,691	2,72,274	4,583	.....

As the net revenue is the largest on record, being Rs. 4,583 more than last year, the financial results may be considered satisfactory. It would have been still larger had not Rs. 9,365 remained outstanding at the end of the year.

CHAPTER VI.

General Remarks.

Cold Season tour.

60. My cold season tour commenced in November. I travelled to Upper Sind, and in doing so, inspected the Sukkur Division. I passed through the Abad Range, and then along the Kashmor Bund to Kashmor, where I met Mr. Steele, the Deputy Commissioner, Upper Sind Frontier, who very kindly instructed his assistant, Mr. Sadik Ali, to accompany and assist me in selecting areas for reservation on the river side of the Kashmor Bund. During this journey, I was particularly struck with the enormous damage done to the jungle by the cattle graziers. Hundreds of acres of *kandi* and *bhan* had been lopped, and the ground was so thickly covered with branches that a passage through the jungle was by no means an easy task. I was also surprised at the way in which zamindars appropriated land for cultivation without the permission of Revenue Officers. Mr. Sadik Ali informed me that the fines inflicted for so doing amounted to a considerable sum annually. After completing my work in the Kashmor taluka, I crossed the river, went through the Rohri Range, and returned to Hyderabad for Christmas.

On the completion of the Christmas holidays, I visited the Jerruck Division, which had not been inspected by a Conservator for four or five years. I gave the forests in this Division a very careful inspection, and, owing to the want of supervision, I found some very strong combinations, anything but beneficial to the Forest Department, between contractors, wood-cutters and the inhabitants of several villages. I deemed it necessary to take immediate steps to break up these combinations, and, in order to thoroughly understand what was going on, I probably spent more time in Lower Sind than I ought to have done.

This work completed, I marched up the right bank of the Indus, went through the forests in the Unarpur Range, and, having crossed the river returned down the left bank through the Rano and Miani Ranges, completing my tour at the end of April.

The Divisional Forest Officers.

61. I have much pleasure in bringing to the notice of Government the good work done by Mr. G. M. Ryan in the Sukkur Division. He has not only displayed great interest in his work, but he has rendered me great assistance in my endeavours to bring about a new system of working.

Mr. Shaukiram has proved himself a good Forest Officer. He deserves great credit for the admirable manner in which he has kept his closed compartments from being grazed over. He seems to have grasped the idea of the improved system of working, and the results in his division are very satisfactory.

Mr. Napier, an officer trained at Cooper's Hill and sent out by the Secretary of State during the year, was attached to this Circle and reported himself for duty on the 2nd January, 1892.

The trained Range Forest Officers.

62. Of the trained Range Forest Officers, Mr. Mangharam is the best.

Mr. Bulchand, having passed through the College course at Poona with great credit, received an acting appointment, which he now holds.

63. I am glad to report that, on the whole, the Rangers, Foresters and Forest Guards did their work to my satisfaction.

Working of Rangers, &c., satisfactory.

64. Mr. Parmanand, Head Accountant, did the inspection of accounts and records of the various divisions of the Circle with his usual care and thoroughness.

Inspection of accounts, &c.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM

FOREST DEPARTMENT, BOMBAY,

Area of Reserved

Divisions.	Civil Districts.	Names of Forests.	Area on 1st April 1891.			Added during the year.
			Acres.	Equivalent in square miles.		Acres.
				Sq.M.	Acres	
Sukkur ...	Shikarpur ...	Raoti	8,129	12	449	...
		Jamshero	6,616	10	216	...
		Daresh	1,725	2	445	...
		Ubauro	3,150	4	590	...
		Mirpur	7,251	11	211	...
		Raharki	1,654	2	374	...
		Reti	2,388	3	468	...
		Rangu	972	1	332	...
		Narli	1,376	2	96	...
		Sarhad	3,529	5	329	...
		Islam	2,064	3	144	...
		Jehanpur	4,340	6	500	...
		Bahab	8,935	14	25	...
		Budh	1,217	1	577	...
		Sadhuja	7,041	11	601	...
		Shahpur	11,215	17	335	...
		Pawhari	587	0	587	...
		Hussenbeli	3,407	5	207	...
		Azizpur	880	1	240	...
		Ding	1,543	2	263	...
		Syedpur	8,216	12	536	...
		Rohri	22,551	35	151	...
		Sultanpur	1,753	2	473	...
		Saliani	5,014	7	534	...
		Ghotki	4,200	6	336	...
		Adilpur	12,676	19	516	...
		Walu Mahar	2,648	4	88	...
		Sumowah	2,252	3	332	...
		Wasir	1,417	2	137	...
		Jarwar	2,839	4	279	...
		Abad	5,604	8	484	...
		Kadirni Bindi	2,306	3	386	...
		Khia Bindi	3,118	4	558	...
		Shah	13,433	20	633	...
		Bindi Dhareja	6,866	10	466	...
		Kadrapur	2,564	4	4	...
		Mohro Mari	11,857	18	337	...
		Andaldal	12,104	18	584	...
		Bagarji	13,884	21	444	...
		Raiswah	905	1	265	...
		Lakhi	3,614	5	414	...
		Ghari Halim	2,096	3	176	...
		Kot Sultan	17,342	27	62	...
	Upper Sind Frontier	Abad	985	1	345	...
		Mehrabpur	991	1	351	...
		Dilawarpur	925	1	285	...
		Milkiat Sircar	1,923	3	3	...
		Bakapur	9,839	15	239	...
		Dilmurad	1,141	1	501	...
		Zangipur	5,334	8	214	...
		Sarki	3,773	5	573	...
		Baluchabad	765	1	125	...
		Korar	875	1	235	...
		Mirpur	6,978	10	578	...
		Jangan	2,291	3	371	...
		Karampur	5,770	9	10	...
		Keti Sadhuja	6,001	9	241	...
		Total Sukkur Division...	2,85,519	446	79	...
Naushahro	Shikarpur	Dosu	4,033	6	193	...
		Keti Ubhuro	5,575	8	455	...
		Kanuri	3,630	5	430	...
		Sharifpur	1,027	1	387	...
		Bahman	1,547	2	267	...
		Naoabad	2,205	3	285	...
		Phati Bilawal	711	1	71	...
		Amrote	11,684	18	164	...
		Muso	5,930	9	170	...
		Kasimshah	2,107	3	187	...
		Nari	1,522	2	242	...
		Magsi	1,483	2	203	...
		Dangar	3,685	5	485	...
		Soi	5,108	7	628	...
		Budo Dero	1,555	2	275	...
		Ghangherko	5,849	9	89	...
		Gaji Dero	4,333	6	493	..
		Garhi Yasin	25,328	39	368	...

Hyderabad,
30th September 1892.

		Sq. M.	Acres		
...	8,129	12	449		
...	6,616	10	216		
...	1,725	2	445		
...	3,150	4	590		
...	7,251	11	211		
...	1,654	2	374		
...	2,388	3	468		
...	972	1	332		
...	1,376	2	96		
...	3,529	5	329		
...	2,064	3	144		
...	4,340	6	500		
...	8,935	14	25		
...	1,217	1	577		
...	7,641	11	601		
...	11,215	17	335		
...	587	0	587		
...	3,407	5	207		
...	880	1	240		
...	1,543	2	263		
...	8,216	12	536		
...	22,551	35	151		
...	1,753	2	473		
...	5,014	7	534		
...	4,200	6	336		
...	12,676	19	516		
...	2,648	4	88		
...	2,252	3	332		
...	1,417	2	137		
...	2,839	4	279		
...	5,604	8	484		
...	2,306	3	386		
...	3,118	4	558		
...	13,433	20	633		
...	6,866	10	466		
...	2,564	4	4		
...	11,857	18	337		
...	12,104	18	584		
...	13,884	21	444		
...	905	1	265		
...	3,614	5	414		
...	2,096	3	176		
...	17,342	27	62		
...	985	1	345		
...	991	1	351		
...	925	1	285		
...	1,923	3	3		
...	9,839	15	239		
...	1,141	1	501		
...	5,334	8	214		
...	3,773	5	573		
...	765	1	125		
...	875	1	235		
...	6,978	10	578		
...	2,291	3	371		
...	5,770	9	10		
...	6,001	9	241		
...	2,85,519	446	79		
...	4,033	6	193		
...	5,575	8	455		
...	3,630	5	430		
...	1,027	1	387		
...	1,547	2	267		
...	2,205	3	285		
...	711	1	71		
...	11,684	18	164		
1,175	4,755	7	275	1,652 of 4th March 1892.	
51	2,056	3	136	8,347 of 4th December 1891.	
103	1,419	2	139	6,744 of 30th September 1891.	
1,483	...	...			Entirely washed away by the river.
...	3,685	5	485		
...	5,108	7	628		
...	1,555	2	275		
...	5,849	9	89		
...	4,333	6	493		
...	25,328	39	368		

				Sq. M.	Acres	
Naushahro—*continued.*	Hyderabad	Bhour	10,539	16	299	...
		Mohbatdero	8,045	12	365	...
		Samtia	3,390	5	190	...
		Kamaldero	1,365	2	85	...
		Bhorti	10,790	16	550	...
		Dalipota	867	1	227	...
		Khairodero	13,073	20	273	...
		Lalia	4,192	6	352	...
	Karachi	Karampur	2,924	4	364	...
		Bagban	1,947	3	27	...
		Bhan	1,138	1	498	...
		Phaka	2,207	3	287	...
		Kalubori	748	1	108	...
		Pipri	925	1	285	...
		Total Naushahro Division	1,49,462	233	342	...
Hyderabad	Hyderabad	Lakhat	6,380	9	620	...
		Nasri	1,556	2	276	...
		Mad	2,642	4	82	...
		Mehrabpur	3,338	5	138	...
		Mari	14,753	23	82	...
		Pai	5,130	8	10	...
		Keti Jurio	2,125	3	205	...
		Rano	1,627	2	347	...
		Nurketi	4,061	6	221	...
		Bhanote	841	1	201	...
		Khanote	8,666	13	346	...
		Khebrani	760	1	120	...
		Sekhat	2,080	3	160	...
		Jakhri	1,926	3	6	...
		Matiari	5,354	8	234	...
		Ghali	3,041	4	481	...
		Miani	6,917	7	437	...
		Kathri	736	1	116	...
		Gundi	2,150	3	230	...
		Mahamed Khan	181	0	181	...
		Jamshoro	292	0	292	...
		Shahmakai	411	0	411	...
		Keti Mehrani	5,523	8	403	...
	Karachi	Gidarji	855	1	215	...
		Butho	7,748	12	68	...
		Manjhand	1,539	2	259	...
		Unarpur	10,765	16	465	...
		Ghag	1,296	2	16	...
		Karokho	1,701	2	421	...
		Total Hyderabad Division	1,02,354	159	594	...
Jerruck	Karachi	Viran	9,142	14	182	...
		Sonda	2,114	3	194	...
		Hillaya	2,898	4	338	...
		Lalang	5,151	8	31	...
		Shah Lanko	1,690	2	410	...
		Garko	4,079	6	239	...
		Kacho Shah Lanko	313	0	313	...
		,, Ali Ganj	715	1	75	...
		,, Bao Purandas	6,413	10	13	...
		,, Bijora	5,890	9	130	...
		,, Chachh	3,362	5	162	...
		Malir	24	0	24	...
		Kacho Alibahar	3,000	4	440	...
		,, Surjani	3,410	5	210	...
		,, Kot Almo	2,335	3	415	...
		Penah	6,169	9	409	...
		Susati	39	0	39	...
		Khirsur	1,380	2	100	...
		Huderani	5,511	8	391	...
		Surjani	1,364	2	84	...
		Ganj	2,228	3	308	...
		Hazari	2,483	3	563	...
		Makbulo	496	0	496	...
		Laikpur	7,406	11	566	...
		Khadi	4,500	7	20	...
		Pohatah	258	0	258	...
		Mulchand	5,454	8	334	...
	Hyderabad	Husri	420	0	420	...
		Khatro	416	0	416	...
		Khathar	2,975	4	415	...
		Katiar	952	1	312	...
		Khirdahi	290	0	290	...
		Tikhur	1,709	2	429	...
		Khokhar	1,556	2	276	...
		Bud ka Takar	975	1	335	...
		Total Jerruck Division	97,117	151	477	...
		Grand Total of the Sind Circle	6,34,452	991	212	...

No. 49.

SIND CIRCLE.

Forests, 1891-92.

Excluded or transferred to other heads.	Area on 31st March 1892.			No. and date of Notification of addition or transfer.	REMARKS.
Acres.	Acres.	Equivalent in square miles.			
		Sq. M.	Acres		
...	10,539	16	299		
...	8,045	12	365		
...	3,390	5	190		
...	1,365	2	85		
...	10,790	16	550		
...	867	1	227		
...	13,073	20	273		
...	4,192	6	352		
...	2,924	4	364		
...	1,947	3	27		
...	1,138	1	498		
...	2,207	3	287		
...	748	1	108		
...	925	1	285		
2,812	1,46,650	229	90		
...	6,380	9	620		
...	1,556	2	276		
...	2,642	4	82		
...	3,338	5	138		
...	14,753	23	33		
...	5,130	8	10		
...	2,125	3	205		
...	1,627	2	347		
...	4,061	6	221		
...	841	1	201		
...	8,666	13	346		
...	760	1	120		
...	2,080	3	160		
...	1,926	3	6		
...	5,354	8	234		
...	3,041	4	481		
...	4,917	7	437		
...	756	1	116		
...	2,150	3	230		
...	181	0	181		
...	292	0	292		
...	411	0	411		
...	5,523	8	403		
...	855	1	215		
...	7,748	12	68		
...	1,539	2	259		
...	10,705	16	465		
...	1,296	2	16		
...	1,701	2	421		
...	1,02,354	159	594		
...	9,142	14	182		
...	2,114	3	194		
...	2,898	4	338		
...	5,151	8	31		
...	1,690	2	410		
...	4,079	6	239		
...	313	0	313		
...	715	1	75		
...	6,413	10	13		
...	5,890	9	130		
...	3,362	5	162		
...	24	0	24		
...	3,000	4	440		
...	3,410	5	210		
...	2,335	3	415		
...	6,119	9	409		
...	39	0	39		
...	1,380	2	100		
...	5,511	8	391		
...	1,364	2	84		
...	2,228	3	308		
...	2,483	3	563		
...	496	0	496		
...	7,406	11	366		
...	4,500	7	20		
...	258	0	258		
...	5,454	8	334		
...	420	0	420		
...	416	0	416		
...	2,975	4	415		
...	952	1	312		
...	290	0	290		
...	1,709	2	429		
...	1,556	2	276		
...	975	1	335		
...	97,117	151	477		
2,812	6,31,640	986	600		

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

ANNUAL FORM No. 49 A.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.—AREA OF PROTECTED FORESTS, 1891-92.

Division.	Civil District.	Name of Forest.	Area on 1st April 1891.		Added during the year.	Excluded or transferred to other heads.	Area on 31st March 1892.		No. and date of Notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
				M. A.				M. A.		
Sukkur	Upper Sind Frontier ...	Macaulay	183	0 183	...	...	183	0 183		
		Dickinson	585	0 585	...	...	585	0 585		
		Total ...	768	1 128	...	...	768	1 128		
Jerruck	Karachi	Kacho Sonda	117	0 117	...	...	117	0 117		
		Total ...	885	1 245	...	...	885	1 245		

Conservator's Office,
Hyderabad, 30th September 1892.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 50.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.

Register of breaches of Forest Rules during 1891-92.

Forest Divisions.		Cases pending from 1890-91.	New Cases of the Year.					Total cases.	Disposed of during the Year.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Sukkur	A	1	...	3	5	3	11	12	3	7	3	12	6	19	6
	B	...	...	194	1,276	1	1,471	1,471	1,471	1,484	...	...	1,471	1,484	...
	C	...	...	1	...	...	1	1	...	...	...	...	...	...	...
	Total ...	1	...	198	1,281	4	1,483	1,484	1,474	1,491	3	12	1,477	1,503	6
Naushahro ...	A	3	...	8	1	4	13	16	9	21	4	14	13	35	3
	B	...	...	62	175	...	237	237	237	244	...	...	237	244	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	3	...	70	176	4	250	253	246	265	4	14	250	279	3
Hyderabad ...	A	2	...	10	...	..	10	12	6	8	4	5	10	13	2
	B	...	...	162	483	..	645	645	645	645	...	...	645	645	...
	C	...	7	4	...	...	11	11	...	...	...	...	...	...	...
	Total ...	2	7	176	483	...	666	668	651	653	4	5	655	658	2
Jerruck	A	...	...	2	...	..	2	2	1	2	1	1	2	3	...
	B	...	...	22	377	...	399	399	399	400	...	...	399	400	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	...	...	24	377	...	401	401	400	402	1	1	401	403	...
Grand Total...	A	6	...	23	6	7	36	42	19	38	12	32	31	70	11
	B	...	..	440	2,311	1	2,752	2,752	2,752	2,773	...	...	2,752	2,773	...
	C	...	7	5	...	...	12	12	...	...	...	...	...	...	...

N. B.—**A** means cases taken into Court.
B means cases disposed of under Section 67 of the Indian Forest Act.
C means undetected cases.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

Hyderabad,
30th September 1892.

FORM No. 51.

Forest Department, Sind Circle.

Area of Forest tracts protected from fire during the dry season of 1891, to accompany report 1891-92.

Divisions.	Forest tracts.	Year in which commenced.	Area actually protected up to 15th June 1891.	During dry season, 1892.			Cost during the season.	Remarks.
				Area attempted to be protected.	Failure.	Area actually protected.		
			Acres.	Acres.	Acres.	Acres.		
Sukkur	Mirpur	Not known ...	46,750	43,194	808	42,386		
	Ghotki		25,855	26,032	230	25,802		
	Sadhuja		71,376	73,009	2,335	70,674		
	Abad		46,703	51,749	20	51,729		
	Sukkur		25,984	25,988	146	25,842		
	Shikarpur	1887-88	23,957	22,957	.....	23,957		
	Jacobabad	1885-86	15,431	15,431	.....	15,431		
	Thul	1885-86	26,927	26,927	.....	26,927		
Naushahro	Bakrani	.....	18,078	18,103	5	18,098		
	Kandiaro	Not known ...	18,670	17,888	1	17,887		
	Sehwan		495	600	.....	600		
Hyderabad	Rano	Do.	10,620	10,720	130	10,590		
	Unarpur		13,050	13,050	450	12,600		
	Miani		3,833	3,833	.....	3,833		
	Kotri		500	500	.....	500		
Jerruck	Viran	Do.	3,829	3,829	.....	3,829		
	Shahbandar		8,783	8,783	1,407	7,376		
	Mulchand		6,020	6,020	7	6,013		
	Katiar		1,603	1,603	.....	1,603		
	Total ...	.....	3,68,464	3,71,216	5,539	3,65,677		

Hyderabad,
30th September 1892.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 52.

FOREST DEPARTMENT, SIND CIRCLE.—AREA OF PLANTATIONS, 1891-92.

Divisions.	Names of Plantation.	Area in Acres				Receipts of the year.	Charges of the year.	Remarks.
		On 1st April 1891.	Added during the year.	Excluded during the year.	Area on 31st March 1892.			
	Regular Plantation.							
Sukkur ...	Aliwahan Garden	20	...	...	20	...	184	
	Rahuja Nursery	10	...	...	10	...	518	
	Shah Plantation	7	...	...	7	...	...	
	Sadhuja do.	27	7	...	34	...	83	
Hyderabad...	Devi-Devi Plantation	13	...	...	13	162	290	
	Bamboo do	13	...	...	13	...	...	
	Miani Bungalow, Mango and Monument Gardens ...	12	...	...	12	465	741	
Jerruck ...	Malir Nursery	24	...	...	24	...	84	
	Sonda do.	5	...	...	5	111	443	
	Total Regular Plantation ...	131	7	...	138	738	2,343	
	Cultural Operations:							
Sukkur ...	Abad	55	640	...	695	...	...	
	Bindi Dhareja	114	640	...	754	...	...	
	Shah	48	20	...	68	...	...	
	Mohro Mari	45	...	...	45	...	...	
	Khia Bindi	22	...	...	22	...	...	
	Kadrapur	...	360	...	360	...	...	
	Rohri	1,018	...	...	1,018	...	...	
	Syadpur	16	...	...	16	...	...	
	Changni	2	...	2	...	...	...	Opened to grazing.
	Saliani	28	...	...	28	...	...	
	Sultanpur	23	...	...	23	...	...	
	Azizpur	20	...	...	20	...	...	
	Ding	308	2	300	10	...	...	Do. do.
	Adilpur	39	...	19	20	...	...	Do. do.
	Raoti	30	...	...	30	...	...	
	Gublo	5	...	...	5	...	...	
	Garhi Habin	...	10	...	10	...	...	
	Lakhi	...	3	...	3	...	...	
	Kote Sultan	...	500	...	500	...	...	
	Andaldal	...	28	...	28	...	...	
	Bagirji	...	3	...	3	...	...	
	Keti Bagirji	...	50	...	50	...	...	
	Total ...	1,773	2,256	321	3,708	...	...	
Naushahro...	Mohbatdero	...	590	...	590	...	...	
	Bhouri	874	760	...	1,634	...	...	
	Kamaldero	100	...	...	100	...	...	
	Bhorti	50	...	...	50	...	...	
	Dalipota	125	...	...	125	...	...	
	Karampur	25	...	...	25	...	...	
	Phaka	250	...	...	250	...	...	
	Pipri	267	...	...	267	...	...	
	Baghban	17	...	...	17	...	...	

	Kalubor	20	...	...	20	...	...		
	Bhan	100	...	...	100	...	...		
	Sharifpur	45	...	...	45	...	...		
	Amrote	110	...	...	110	...	...		
	Muso	15	75	...	90	...	...		
	Bahman	30	...	...	30	...	...		
	Keti Ubhuro	3	...	...	3	...	...		
	Gajidero	15	...	...	15	...	...		
	Total ...	2,046	1,425	...	3,471	...	...		
Hyderabad...	Nasri	...	160	...	160	...	...		
	Mari	1,071	625	160	1,536	...	...	160 acres were opened to grazing.	
	Nurket	420	15	...	435	...	...		
	Mad	646	...	...	646	...	...		
	Rano	50	150	...	200	...	...		
	Keti Jurio	160	150	...	310	...	...		
	Mehrabpur	160	320	...	480	...	...		
	Butho	1,635	640	...	2,275	...	...		
	Manjhand	158	...	...	158	...	...		
	Unarpur	1,145	320	...	1,465	...	...		
	Ghagh	...	160	...	160	...	...		
	Khanote	443	160	...	603	...	...		
	Sekhat	...	20	...	20	...	...		
	Matiari and Jakhri	1,040	830	...	1,870	...	...		
	Miani	870	15	...	885	...	...		
	Muhammad Khan	181	...	...	181	...	...		
	Kathri	50	...	...	50	...	...		
	Shah Makai	43	...	...	43	...	...		
	Jamshoro	23	...	...	23	...	...		
	Total ...	8,095	3,565	160	11,500	...	...		
Jerruck ...	Mulchand	277	...	...	277	...	...		
	Khadi	40	...	...	40	...	...		
	Penah	13	...	...	13	...	...		
	Laikpur	147	...	...	147	...	...		
	Virau	785	...	...	785	...	...		
	Garko	588	...	588	...	...	...	588 acres were opened to grazing.	
	Shah Louko	255	11	...	266	...	...		
	Sonda	157	43	...	200	...	...		
	Hilaya	228	...	...	228	...	...		
	Khathar	60	...	...	60	...	...		
	Katiar	24	...	...	24	...	...		
	Bud ka Takur	107	...	...	107	...	...		
	Lalang	22	...	...	22	...	...		
	Total ...	2,703	54	588	2,169	...	...		
	Total Cultural Operations... ...	14,617	7,300	1,069	20,848	...	...		
	Grand Total of Regular and Cultural Operations. .	14,748	7,307	1,069	20,986	...	...		

Hyderabad,
30th September 1892.

W. S. HEXTON,
Deyuty Conservator of Forests, Sind Circle.

FORM No. 54.

FOREST DEPARTMENT, SIND CIRCLE.—OUTTURN, IN CUBIC FEET, OF TIMBER AND FIREWOOD DURING THE YEAR 1891-92. AND AGENCY OF EXPLOITATION.

Divisions.	Timber in the rough logs.					Timber in the rough poles.					Sawn or squared timber.					Miscellaneous.					Fuel.					Total.
	Government.	Purchasers.	Free grant.	Right-holders.	Total.	Government.	Purchasers.	Free grant.	Right-holders.	Total.	Government.	Purchasers.	Free grant.	Right-holders.	Total.	Government.	Purchasers.	Free grant.	Right-holders.	Total.	Government.	Purchasers.	Free grant.	Right-holders.	Total.	Out-turn.
I.—Reserved Forests.																									
Sukkur	15,913	5,497	530	...	21,940	5,323	433	31	...	5,787	...	...	...	...	...	19,211	28,579	1,775	...	49,565	54,24,062	23,42,517	337	...	77,66,916	78,44,208
Naushahro	2,593	1,164	344	...	4,101	4,308	16,212	2,294	...	22,814	...	...	...	...	...	16	527	1,910	...	2,453	30,88,351	3,70,086	270	...	34,58,707	34,88,075
Hyderabad	1,302	1,694	298	...	3,294	59,860	4,637	575	...	65,072	21,769	524	...	...	22,293	...	6	...	...	6	44,47,121	2,57,034	1,350	...	47,05,505	47,96,170
Jerruck	25,635	471	366	...	26,472	4,933	8,568	150	...	13,651	...	...	...	...	...	1,750	...	...	...	1,750	19,58,787	25,775	...	...	19,84,562	20,26,435
Total ...	45,443	8,826	1,538	...	55,807	74,424	29,850	3,050	...	1,07,324	21,769	524	...	...	22,293	20,977	29,112	3,685	...	53,774	1,49,18,321	29,95,412	1,957	...	1,79,15,690	1,81,54,888
II.—Protected Forests.																									
Sukkur	...	232	...		232	...	43	...	...	43	...	...	...	...	...	...	257	...	...	257	10,125	446	...	...	10,571	11,103

Hyderabad,
30th September, 1892.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 55.

FOREST DEPARTMENT, SIND CIRCLE—Outturn of minor Forest produce.

Divisions.	Description of produce.	Produce removed or utilised										Remarks.
		By Government agency.		By purchasers.		By free grant.		By right holders.		Total.		
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
			Rs.		Rs.		Rs.		Rs.		Rs.	
Sukkur	Mango fruit	Contract ...	66	...	...	...	...	...	...	Contract...	66	
	Babul seed... ... ...Maunds.	4	3	...	...	...	...	...	...	4	3	
	Babul pods...	...	...	Contract...	424	...	...	...	...	Contract...	424	
	Munj and reed	...	...	Do. ...	1,032	...	...	...	...	Do. ...	1,032	
	Reed grass ... ...Bundles.	...	...	29	2	...	...	...	...	29	2	
	Kanh grass... ... ... Do.	...	...	1,143	72	50	3	...	...	1,193	75	
	Do. ... ...Cartloads.	...	...	100	7	...	...	...	...	100	7	
	Dabh grass... ... ...Maunds.	...	...	4,684	299	...	...	...	...	4,684	299	
	Jháu brushwood ... ...Bundles.	...	...	1,381	89	81	5	...	...	1,462	94	
	Potash	...	...	Contract...	37	...	...	...	...	Contract...	37	
	Compensation for damaging branches of trees	...	...	...	17	...	...	...	...	...	17	
	Grazing fees	...	...	...	17,133	...	...	...	...	...	17,133	
	Total... ...	...	69	...	19,112	...	8	...	...	...	19,189	
Naushahro...	Babul pods...	...	...	Contract...	1,954	...	...	...	...	Contract...	1,954	
	Ber fruit	...	...	Do. ...	27	...	...	...	...	Do. ...	27	
	Sar grass	...	...	Do. ...	721	...	...	...	...	Do. ...	721	
	Do. ... ...Bundles.	...	...	113	8	...	...	...	...	113	8	
	Branches of trees	...	...	...	45	...	...	...	...	...	45	
	Jháu brushwood ... ...Bundles.	...	...	934	56	...	...	...	...	934	56	
	Babul bark ... ...Maunds.	...	...	9	2	...	...	...	...	9	2	
	Babul branches	...	...	...	2	...	...	...	...	...	2	
	Babul seed ... ...Maunds.	11	...	...	...	...	...	...	...	11	21	
	Grazing fees	...	21	...	10,151	...	...	...	...	...	10,151	
	Total... ...	...	21	...	12,966	...	...	...	...	...	12,987	

Hyderabad...	Babul bark... ... ...Maunds.		502		98		75		9	...		...		...		577		107
	Tooth-brushes ... ... Do.	...		...			256		116	...		...		...		256		116
	Brushwood... ... ...Bundles.	...		...			483		30	...		...		...		483		30
	Kanh grass... ... ... Do.	...		...			980		62		157		10	...		1,137		72
	Do.	...		...		Contract...			161	...		...		...		Contract...		161
	Compensation for damaging trees.	...		...		...			340	...		...		...		...		340
	Kinro	...		...		Contract...			4	...		...		...		Contract...		4
	Sakur	...		...		Do. ...			20	...		...		...		Do. ...		20
	Babul pods...	...		...		Do. ...			8,296	...		...		...		Do. ...		8,296
	Mango fruit	...		...		Do. ...			465	...		...		...		Do. ...		465
	Lac	...		...		Do. ...			2,372	...		...		...		Do. ...		2,372
	Do. ... ...Maunds.	...		...			22		42	...		...		...		22		42
	Reed grass ... ...Bundles.	...		...			271		17	...		...		...		271		17
	Babul seed... ... ...Maunds.		24		39	...		...		...		...		...		24		39
	Grazing fees	...		...		...			16,825	...		...		...		...		16,825
	Total... ...	...		137		...			28,759	...			10	...		...		28,906
Jerruck	Babul bark... ... ...Maunds.		443		171	...		...		...		...		...		443		171
	Jhâu brushwood ... ...Bundles.	...		...			1,623		102		20		1	...		1,643		103
	Potash ... ...Maunds.	...		...			108		29	...		...		...		108		29
	Lac	...		...		Contract...			205	...		...		...		Contract...		205
	Fruit	...		...		Do ...			152	...		...		...		Do. ...		152
	Babul pods...	...		...		Do. ...			3,893	...		...		...		Do. ...		3,893
	Kanh grass... ... ...Bundles.	...		...			20		1	...		...		...		20		1
	Reed grass ... ... Do.	...		...			264		17	...		...		...		264		17
	Compensation	...		...		...			15	...		...		...		...		15
	Grazing fees	...		...		...			14,891	...		...		...		...		14,891
	Total... ...	...		171		...			19,305	...			1	...		...		19,477

Hyderabad,
30th September 1892.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 56.

FOREST DEPARTMENT, SIND CIRCLE.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôts or sold locally during the year 1891-92.

	Particulars.	No. or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
	TIMBER.				
	Balance at commencement of the year.				
	Sale Depôts.				
Sukkur Division.	Bahan logs	119	782		
	Bahan Dasas	18	70		
	Bahan pots...	73	...		
	Bahan rafters	10	...		
				220	852
	Forest Depôts.				
	Bahan Dasas	20	...		
	Bahan posts	325	...		
	Bahan rafters	3,636	...		
				3,981	
	Sale Depôts.				
Naushahro Division.	Bahan logs...	8	68		
	Bahan posts	282	...		
	Bahan rafters	7	...		
				297	68
	Forest Depôts.				
	Babul logs	274	1,591		
	Bahan do.	1	3		
	Lai do.	1	2		
	Kandi do.	1	4		
				277	1,600

	Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
	TIMBER.				
	Removed by purchasers from Depôts.				
	Babul logs and dasas	2,479	28,215		
	Bahan logs and dasas	1,643	9,923		
	Tali logs	49	355		
	Babul bolsters	329	1,574		
	Babul cart axles	438	...		
	Babul sleepers	1,106	...		
	Babul posts	3,273	...		
	Bahan posts	12,370	...		
	Jhau do.	3,600	...		
	Babul rafters	967	...		
	Bahan do.	1,56,128	...		
	Jhau do.	9,215	...		
	Tali pieces	29	...		
	Tali posts	14	...		
	Babul pieces	11	...		
				1,91,651	40,067
	Sold Locally.				
	Babul logs and dasas	1,554	8,341		
	Bahan logs	124	653		
	Babul sleepers	2,526	...		
	Babul posts	354	...		

		Sale Depôts.												
Hyderabad Division.	Babul logs ...	...	...	...	7	65			Bahan posts	...	...	...	50	...
	Babul log ...	...	...	...	1	...			Bahan rafters	...	...	...	308	...
	Bahan logs ...	...	...	...	1	7			Jhau rafters	...	...	...	451	...
	Bahan dasas	...	...	...	275	...			Babul pieces	...	...	...	313	...
	Bahan posts	...	...	...	4,075	...			Babul outer slabs	...	...	...	26	...
	Bhan rafters	...	...	...	9,600	...								
	Jhau do.	...	...	...	800	...							5,705	8,294
	Babul do.	...	...	...	29	...								
	Babul outer slabs	...	...	...	17	...			USED BY DEPARTMENT.					
	Babul planks	...	...	...	1	...								
	Jhau posts ...	...	...	...	100	...			*Sale Depôts.*					
	Babul bolsters	...	...	...	8	38								
							14,914	110	Bahan logs	...	...	...	1	4
									Bahan rafters	...	...	...	100	...
		Forest Depôts.												
													101	
	Babul sleepers	...	...	..	16	...			*Forest Depôts.*					
	Babul rafters	...	...	...	1,800	...								
	Babul pieces	...	...	...	7	...								
							1,823	...	Babul outer slabs	...	...	...	12	...
													12	...
		Sale Depôts.												
Jerruck Division.	Babul logs	...	...	...	2	22			*Transferred to Sale Depôts.*					
							2	22						
		Forests Depôts.							Bahan dasas	...	...	...	20	...
	Babul logs ...	...	...	...	17	34			Bahan posts	...	...	...	325	...
							17	34	Bahan rafters	...	...	...	2,624	...
									Babul sleepers	...	...	...	10	...
	Total balance			...	...	...	21,531	2,686	Babul rafters	...	...	...	1,594	...
													4,573	...

Received from Forests in Sale Depôts.

Babul logs and dasas	2,727	29,185		
Bahan do. do.	1,655	11,206		
Tali do.	453	2,799		
Babul bolsters	321	1,536		
Babul cart axles	621	...		
Babul sleepers	1,170	...		
Babul posts	3,557	...		
Bahan do.	10,994	...		
Jhau do.	5,200	...		
Babul rafters	4,694	...		
Bahan do.	1,79,216	...		
Jhau do.	31,215	...		
Tali pieces	29	...		
Tali posts	66	...		
Babul pieces	11	...		
			2,41,929	44,726

Received in Forest Depôts.

Babul logs and dasas	1,325	7,145		
Bahan logs	124	653		
Babul sleepers	2,611	...		
Babul posts	354	...		
Bahan do.	950	...		
Babul rafters	5,808	...		
Jhau do.	451	...		

BALANCE AT CLOSE OF THE YEAR.

Sukkur Division.	*Sale Depôts.*					
	Babul logs and dasas	235	695			
	Bahan logs and dasas	425	2,150			
	Tali logs	404	2,444			
	Tali posts	52	...			
	Babul do.	284	...			
	Bhan rafters	13,505	...			
	Bhan posts	1,004	...			
	Babul carts axles	183	...		16,092	5,289
	Forest Depôts.					
		900	...			
	Bhan posts	6,512	...			
	Bhan rafters				7,412	...
Naushahro Division.	*Sale Depôts.*					
	Bahan logs	6	49			
	Bahan posts	2	...		8	49
	Forest Depôts.					
	Babul logs	43	391			
	Bahan do.	1	3			
	Lai log	1	2			
	Kandi do.	1	4		46	400
Division.	*Sale Depôts.*					
	Babul logs	7	65			
	Babul log	1	...			
	Bahan logs	1	7			
	Bhan posts	2,048	...			

Babul pieces	313	...				
Babul outer slabs	38	...				
			11,974	7,798		
Total Timber ...	...	...	2,75,434	55,210		

Hyderabad	Bhan rafters	19,100	...			
	Jhau posts	1,700	...			
	Babul outer slabs	17	...			
	Babul plank	1	...			
	Babul rafters...	3,715	...			
	Jhau do.	22,800	...			
	Babul sleepers	64	...			
				49,495	72	
	Forest Depôts.					
	Babul sleepers	91	...			
	Babul pieces	7	...			
	Babul rafters...	206	...			
				304	...	
	Sale Depôts.					
Jerruck Division.	Babul logs	15	297			
				15	297	
	Forest Depôts.					
	Babul logs	19	38			
				19	38	
Total Timber ...	...	...		2,75,434	55,210	

FIREWOOD AND CHARCOAL.

BALANCE AT COMMENCEMENT OF THE YEAR.

Sukkur Division.	*Sale Depôts.*							
	Firewood	...	...	...	Mds.	29,318	...	29,318
	Locomotive fuel	...	...	...	C. ft.	...	26,990	26,990
	Forest Depôts.							
	Firewood	...	...	...	Mds.	10,076	...	10,076
	Locomotive fuel	...	...	...	C. ft.	...	15,937	15,937
Naushahro Division.	*Sale Depôts.*							
	Firewood	...	...	...	Mds.	2,400	...	2,400
	Forest Depôts.							
	Firewood	...	...	...	Mds.	5,628	...	...
	Locomotive fuel		...	...	C. ft.	...	1,55,400	1,55,400
	Babul seed	...	...	...	Mds.	8	...	5,636
Hyderabad Division.	*Sale Depôts.*							
	Firewood	...	...	...	Mds.	27,411	...	...
	Charcoal	...	...	...	„	170	...	
	Babul bark	...	...	...	„	2	...	
	Forest Depôts.							
	Firewood	...	...	...	Mds.	9,221	...	27,583
	Locomotive fuel		...	...	C. ft.	...	95,730	...
	Charcoal	...	...	...	Mds.	200	...	9,421
								95,730

FIREWOOD AND CHARCOAL.

Removed by purchasers from Sale Depôts.

Firewood	...	...	...	Mds.	3,51,130	...	
Locomotive fuel		...	...	C. ft.	...	12,91,425	
Charcoal	...	...	...	Mds.	4,385	...	
Babul bark	...	...	...	„	795	...	
Babul seed	...	...	...	„	16	...	
							3,56,326 12,91,425
Sold Locally.							
Firewood	...	...	...	Mds.	1,14,519	...	
Locomotive fuel		...	...	C. ft.	...	98,16,227	
Charcoal	...	...	...	Mds.	52,642	...	
Babul seed	...	...	...	„	90	...	
							1,67,251 98,16,227
Transferred to other Sale Depôts.							
Babul bark	...	...	...	Mds.	293	...	
Charcoal	...	...	...	„	1,375	...	
							1,668 ...
WRITTEN OFF.							
Forest Depôts.							
Firewood	...	...	...	Mds.	2,037	...	
Locomotive fuel		...	...	C. ft.	...	18,095	
Babul seed	...	...	...	Mds	48	...	
							2,085 1,895
Transferred to Sale Depôts.							
Firewood	...	...	...	Mds.	6,466	...	
Locomotive fuel		...	...	C. ft.	...	22,910	
Charcoal	...	...	...	Mds.	200	...	
							6,662 22,910
Used by Department.							
Babul seed	...	...	...	Mds.	28	...	
Khair seed	...	...	...	„	21	...	

			Sale Depôts.												
Jerruck Division.	Firewood	...	...	...	Mds.	1,000	...								
	Charcoal	...	...	...	„	50	...								
			Forest Depôts.					1,050	...						
	Firewood	...	...	...	Mds.	33,100	...								
	Locomotive fuel		...	...	C. ft.	...	85,980								
	Charcoal	...	...	...	Mds.	1,033	...								
	Babul seed	...	...	...	„	48	...								
				Total Balance...				34,181	85,980						
			Received from Forest in Sale Depôts.					1,19,665	3,80,037						
	Firewood ...	...	...	...	Mds.	3,40,710	...								
	Locomotive fuel	...	...	...	C. ft.	...	12,76,606								
	Charcoal ...	...	...	...	Mds.	4,598	...								
	Babul bark	...	...	...	„	793	...								
	Babul seed	...	...	...	„	16	...								
								3,46,117	12,76,606						
			Received in Forest Depôts.												
	Firewood ...	...	...	...	Mds.	1,19,891	...								
	Locomotive fuel	...	...	...	C. ft.	...	97,14,116								
	Charcoal ...	...	...	...	Mds.	53,106	...								
	Babul seed	...	...	...	„	119	...								
	Khair seed	...	...	...	„	2	...								
	Jhau brushwood	...	...	...	Bundles.	4	...								
	Sar grass ...	...	...	...	„	7	...								
								1,73,129	97,14,116						
			Received by transfer in Sale Depôts.												
	Babul bark	...	...	...	„	293	...								
	Charcoal ...	...	...	...	„	1,375	...								
								1,668	...						
				Total ...		...	...	6,40,579	1,13,70,759						

	Jhau brushwood	...	...	...	Bundles.	4	...								
	Sar grass ...	...	...	...	„	7	...								
										41	...				
			BALANCE AT CLOSE OF THE YEAR.												
			Sale Depôts.												
Sukkur Division.	Firewood	...	...	...	Mds.	32,131	...								
	Locomotive fuel	...	...	...	C. ft.	...	10,921								
			Forest Depôts.							32,131	10,921				
	Firewood	...	...	...	Mds.	6,706	...								
	Locomotive fuel	...	...	...	C. ft.	...	3,202								
			Sale Depôts.							6,706	3,202				
Naushahro Division.	Firewood	...	...	...	Mds.	300	...								
			Forest Depôts.							300	...				
	Firewood	...	...	...	Mds.	5,539	...								
	Locomotive fuel	...	...	...	C. ft.	...	1,00,600								
	Charcoal	...	...	...	Mds.	...	...								
	Babul seed	...	...	...	„	9	...								
			Sale Depôts.							5,548	1,00,600				
Hyderabad Division.	Firewood	...	...	...	Mds.	16,028	...								
	Locomotive fuel	...	...	...	C. ft.	...	1,250								
	Charcoal	...	...	...	Mds.	420	...								
			Forest Depôts.							16,448	1,250				
	Firewood	...	...	...	Mds.	28,291	...								
	Locomotive fuel	...	...	...	C. ft.	...	19,303								
			Sale Depôts.							28,291	19,303				
Jerruck Division.	Firewood	...	...	...	Mds.	1,250	...								
	Charcoal	...	...	...	„	13	...								
			Forest Depôts.							1,263	...				
	Firewood	...	...	...	Mds.	14,362	...								
	Locomotive fuel	...	...	...	C. ft.	...	1,03,026								
	Charcoal	...	...	...	Mds.	1,497	...								
					Total ...	...	...			15,859	1,03,026				
										6,40,579	1,13,70,759				

Hyderabad,
30th September

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 57.

FOREST DEPARTMENT, SIND CIRCLE.

Abstract showing the value of timber and other produce at Sale Depôts for the year 1891-92.

	Description of timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
		No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favor of the year.	Against the year.
Sukkur Division.	*Sale Depôts.*								
	Bahan logs and dasas ...	137	852	426	425	2,150	1,075	...	...
	Babul logs and dasas ...	...	...	...	235	695	347	...	...
	Tali logs and dasas	...	...	...	404	2,444	1,222	...	...
	Bahan posts	73	...	23	1,004	...	321	...	...
	Babul posts	...	...	...	284	...	91	...	...
	Tali posts	...	...	...	52	...	17	...	...
	Bahan rafters	10	...	1	13,505	...	1,956	...	...
	Babul cart axles	...	...	...	183	...	68	...	...
	Total	220	852	450	16,092	5,289	5,097	4,647	...
	Forest Depôts.								
	Bhan posts.....	325	...	81	900	...	225	...	...
	Bhan rafters	3,636	...	436	6,512	...	781	...	...
	Bahan dasas	20	...	15	...	...	...	...	...
	Total	3,981	...	532	7,412	...	1,006	474	...
	Sale Depôts.								
	Firewood ..... Mds.	29,318	...	5,277	32,131	...	5,784	...	...
	Locomotive fuel... C. ft.	...	26,990	1,045	...	10,921	421	...	...
	Total	29,318	26,990	6,322	32,131	10,921	6,205	...	117
	Forest Depôts.								
	Firewood ..... Mds.	10,076	...	1,209	6,706	...	805	...	...
	Locomotive fuel... C. ft.	...	15,937	319	...	3,202	64	...	...
	Total.....	10,076	15,937	1,528	6,706	3,202	869	...	659
Naushahro Division.	*Sale Depôts.*								
	Bahan logs.....	8	68	34	6	49	25	...	...
	Bahan posts	282	...	45	2	...	1	...	...
	Bahan rafters	7	...	1	...	...	...	...	...
	Total	297	68	80	8	49	26	...	54
	Forest Depôts.								
	Babul logs	274	1,591	274	43	391	71	...	...
	Bahan logs.....	1	3	1	1	3	1	...	...
	Jhán logs	1	2	1	1	2	1	...	...
	Kandi longs	1	4	1	1	4	1	...	...
	Total	277	1,600	277	46	400	74	...	203
	Sale Depôts.								
	Firewood ..... Mds.	2,400	...	408	300	...	72	...	336
	Forest Depôts.								
	Firewood ..... Mds.	5,628	...	995	5,539	...	977	...	...
	Locomotive fuel... C. ft.	...	1,55,400	5,528	...	1,00,600	3,521	...	...
	Babul seed..... Mds.	8	...	8	9	...	9	...	...
	Total	5,636	1,55,400	6,531	5,548	1,00,600	4,507	...	2,024

	Description of timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
		No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favor of the year.	Against the year.
Hyderabad Division.	*Sale Depôts.*								
	Babul logs	7	65	32	7	65	32	...	...
	Babul logs	1	...	1	1	...	1	...	...
	Bahan posts	4,075	...	1,630	2,048	...	410	...	...
	Bahan rafters	9,600	...	1,056	19,100	...	1,910	...	...
	Bahan dasas	275	...	275	...	...	...	...	...
	Jháu posts	100	...	8	1,700	...	85	...	...
	Babul slabs	17	...	4	17	...	4	...	...
	Babul planks	1	...	2	1	...	2	...	...
	Babul rafters	29	...	11	3,756	...	751	...	...
	Babul bolsters	8	38	16	...	...	...	...	...
	Jháu rafters	800	...	42	22,800	...	912	...	...
	Babul sleepers	...	...	...	64	...	64	...	...
	Bahan logs	1	7	3	1	7	3	...	...
	Total	14,914	110	3,080	49,495	72	4,174	1,094	...
	Forest Depôts.								
	Babul sleepers	16	...	32	91	...	182	...	...
	Babul pieces	7	...	1	7	...	1	...	...
	Babul rafters	1,800	...	360	206	...	31	...	...
	Total	1,823	...	393	304	...	214	...	179
	Sale Depôts.								
	Firewood ..... Mds.	27,411	...	4,934	16,028	...	2,885	...	...
	Locomotive fuel ... C. ft.	...	...	...	...	1,250	52	...	...
	Charcoal ..... Mds.	170	...	95	420	...	235	...	...
	Babul bark	2	...	1	...	...	...	...	...
	Total	27,583	...	5,030	16,448	1,250	3,172	...	1,858
	Forest Depôts.								
	Firewood ..... Mds.	9,221	...	922	28,291	...	2,829	...	...
	Locomotive fuel ... C. ft.	...	95,730	2,202	...	19,303	444	...	...
	Charcoal ..... Mds.	200	...	70	...	...	...	...	...
	Total	9,421	95,730	3,194	28,291	19,303	3,273	79	...
Jerruck Division.	*Sale Depôts.*								
	Babul logs	2	22	33	15	297	446	413	...
	Forest Depôts.								
	Babul logs	17	34	2	19	38	5	3	...
	Sale Depôts.								
	Firewood ..... Mds.	1,000	...	180	1,250	...	225	...	...
	Charcoal ..... Mds.	50	...	50	13	...	13	...	...
	Total	1,050	...	230	1,263	...	238	8	...
	Forest Depôts.								
	Firewood ..... Mds.	33,100	...	3,972	14,362	...	1,723	...	...
	Locomotive fuel ... C. ft.	...	85,980	1,836	...	1,03,026	2,176	...	...
	Charcoal ..... Mds.	1,033	...	372	1,497	...	539	...	...
	Babul seed	48	...	24	...	...	...	...	...
	Total	34,181	85,980	6,204	15,859	1,03,026	4,438	...	1,766

Hyderabad,
30th September 1892.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 58.

Forest Department, Bombay, Sind Circle.

Summary of Revenue and Expenditure of the different Divisions during the year 1891-92.

Budget Heads.	Direction.	Hyderabad Division.	Jerruck Division.	Naushahro Division.	Sukkur Division.	Total for 1891-92.
REVENUE.						
I. Timber and other Produce removed from the Forests by Government Agency—						
a. Timber	...	26,882 4 7	43,601 13 3	*1,262 5 1	16,449 12 11	88,196 3 10
b. Firewood and charcoal	...	1,45,685 4 6	81,734 7 7	1,11,405 5 3	1,93,914 14 9	5,32,740 0 1
c. Bamboos	...	...	...	...	...	...
d. Sandalwood	...	...	...	...	...	...
e. Grass and other minor produce	...	136 12 0	171 3 6	20 12 0	69 2 3	397 13 9
II. Timber and other Produce removed from the Forests by Consumers or Purchasers—						
a. Timber	...	907 10 7	629 3 7	963 1 6	5,972 4 10	8,472 4 6
b. Firewood and charcoal	...	3,648 3 0	329 8 6	3,712 10 1	22,656 9 11	30,346 15 6
c. Bamboos	...	...	...	...	...	...
d. Grazing and fodder grass	...	16,825 1 6	14,890 15 0	10,151 4 6	17,133 6 0	59,000 11 0
e. Other minor produce	...	11,934 0 10	4,414 6 2	2,815 1 0	1,978 14 3	21,142 6 3
III. Drift and Waif wood and confiscated Forest Produce	...	12 0 0	1 8 0	47 0 0	1 12 0	62 4 0
IV. Revenue from Forests not managed by Government—						
a. Duty on foreign timber and other forest produce	...	...	...	...	...	...
b. Revenue from shared and private forests	...	...	...	...	...	...
V. Miscellaneous—						
a. Fines and forfeitures	...	...	...	...	...	...
b. Refunds	32 0 2	6 14 1	...	...	...	38 14 3
c. Other sources	...	4,343 6 9	3,155 14 2	13,770 8 3	12,540 13 4	33,812 10 6
Total Revenue	32 0 2	2,10,383 9 10	1,48,928 15 9	1,44,147 15 8	2,70,717 10 3	7,74,210 3 8
EXPENDITURE.						
A—Conservancy and Works.						
I. Timber and other Produce removed from the Forests by Government Agency—						
a. Timber	...	9,734 7 4	29,431 15 1	274 8 2	5,570 14 9	45,011 13 4
b. Firewood and charcoal	...	88,693 14 9	52,898 8 11	79,102 5 7	1,31,107 6 2	3,51,803 3 5
c. Bamboos	...	...	...	...	...	...
d. Sandalwood	...	...	...	...	...	...
e. Grass and other minor produce	...	3 12 0	137 8 2	59 12 0	0 14 6	200 14 8
II. Timber and other Produce removed from the Forests by Consumers or Purchasers	...	...	73 3 11	177 15 8	...	251 3 7
III. Drift and Waif wood and confiscated Forest Produce	...	...	...	...	0 14 0	0 14 0
IV. Revenue from Forests not managed by Government—						
a. Duty on foreign timber and other forest produce	...	...	...	...	...	...
b. Revenue from shared and private forests	...	...	...	...	...	...
V. Rent of leased Forests and Payments to shareholders in Forests managed by Government—						
VI. Live Stock, Stores, Tools and Plant—						
a. Purchase of cattle	...	97 0 0	49 5 0	...	110 0 0	*256 5 0
b. Feed and keep of cattle	...	4 12 0	0 14 0	..	77 14 0	83 8 0
c. Purchase of stores, tools and plant	1 12 0	523 0 3	115 5 0	98 6 0	339 1 0	1,082 8 3
VII. Communications and Buildings—						
a. Roads and bridges	...	...	138 0 3	...	...	138 0 3
b. Buildings	...	91 9 1	31 6 0	77 10 6	110 0 0	310 9 7
c. Other works	...	...	...	...	2 2 0	2 2 0
VIII.—Demarcation, Improvement, and Extension of Forests—						
a. Demarcation	...	...	...	...	...	...
b. Compensation for land and rights	...	...	...	...	...	...
c. Surveys and working plans	...	937 7 0	726 7 7	611 7 10	765 3 6	3,040 9 11
d. Sowing and planting	...	1,031 6 7	466 7 11	7 2 0	1,712 12 10	3,217 13 4
e. Protection from fire	...	...	65 4 0	...	...	65 4 0
f. Other works	...	855 7 8	439 12 9	445 5 9	7 8 0	1,748 2 2
IX. Miscellaneous—						
a. Refunds	...	...	...	...	...	...
b. Law charges	...	...	...	...	...	...
c. Other charges	0 7 6	687 15 8	494 0 0	647 5 6	1,348 8 6	3,178 4 8
Total A. Conservancy and Works	2 3 6	1,02,685 13 1	85,068 2 7	81,500 14 6	1,41,153 3 3	4,10,390 4 11
B—Establishments.						
I. Salaries—						
a. Conservators	12,000 0 0	...	...	...	...	12,000 0 0
b. Superior Officers	...	...	...	...	...	...
c. Subordinate Forest and Depot Establishments	...	2,400 0 0	2,400 0 0	1,800 0 0	7,110 0 3	13,710 0 3
d. Office Establishments	3,517 10 1	1,383 9 9	1,251 0 0	1,296 0 0	1,745 9 9	9,193 13 7
e. Deputation and Special Allowances	169 0 0	...	...	...	...	169 0 0
II. Travelling Allowances—						
a. Conservators	2,400 0 0	...	...	...	...	2,400 0 0
b. Superior Officers	...	...	...	...	...	...
c. Subordinate Forest and Depot Establishments	...	1,200 0 0	1,200 0 0	1,235 15 8	1,570 9 7	5,206 9 3
d. Office Establishments	1,153 8 10	827 12 6	567 13 3	675 11 5	1,174 8 9	3,245 13 11
III. Contingencies—		485 15 3	433 11 6	423 5 11	728 13 1	3,225 6 7
a. Stationery	7 14 8	73 6 0	68 15 9	139 4 11	216 3 5	505 12 9
b. Carriage of Tents and Records	257 14 8	126 7 0	127 2 9	116 10 1	131 9 1	759 11 7
c. Rents, Rates and Taxes	300 0 0	240 0 0	254 8 0	240 0 0	123 0 0	1,157 8 0
d. Pay of Police Guards	...	...	...	...	...	...
e. Official Postage	130 9 6	152 0 0	131 0 0	288 1 0	501 11 6	1,203 6 0
f. Sundries	281 11 2	176 10 3	138 6 9	131 0 10	389 14 3	1,117 11 3
Payments to Officers of other Provinces	...	...	...	...	...	...
Total B. Establishments	20,218 4 11	10,115 2 8	12,735 15 11	13,433 6 8	29,013 0 0	91,545 14 2
Grand Total of Expenditure	20,220 8 5	1,18,780 15 9	97,804 2 6	94,934 5 2	1,70,196 3 3	5,01,936 3 1

No. F. 12540

Forwarded to the Conservator of Forests, Sind Circle, under Section 238 of the Forest Department Code.

Bombay, Accountant General's Office, Dated 3rd August 1892.

GODREZJI D. PADAMJI,
for Accountant General.

FORM No. 59.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.—ACCOUNT CURRENT FOR THE YEAR 1891-92.

	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To opening Balance	...	90 2 4	1. Refunds and Drawbacks—Refunds—		
VIII—Assessed Taxes—Income Tax—			Divided Heads, Forest	...	79 5 9
Deductions by Government from Salaries and Pensions	...	845 7 5	11. Forest (as per summary)	...	5,01,936 3 1
IX—Forest (as per summary)	...	7,74,210 3 8	19. Law and Justice—		
Revenue Deposits, (Forest)	...	1,964 0 0	Jails, District Jails, Contingencies, Miscellaneous Office expenses ...	...	494 4 11
Cheques and Bills, (Departmental Cheques), Forest	...	4,94,326 1 11	Revenue Deposits (Forests)	...	1,978 13 0
Advances Recoverable—			Cheques and Bills (Forests Cheque cancelled)	...	79 12 11
Forest Advances	1,29,549 0 3	...	Advances Recoverable—		
Objection Book Advances	233 5 4	1,29,782 5 7	Forest advances	1,20,400 9 5	...
			Objection Book Advances	500 0 0	1,20,900 9 5
Cash recoveries	...	2,000 8 8	Cash Recoveries	...	2,000 8 8
Forest Remittances—			Forest Remittances—		
Remittances to Treasuries	0 4 0	...	Remittances to Treasuries	3,18,158 8 7	...
Inter-Divisional Transfers	13,799 12 7	...	Inter-Divisional Transfers	13,590 8 7	...
Inter-Departmental Transfers	24 0 0	13,824 0 0	Inter-Departmental Transfers	...	3,31,749 1 2
Account between Bombay and Public Works Department, Bombay—			Account between Bombay and Military Bengal Western Circle—		
IV. Payments into Treasuries by Civil Officers on account of Public Works Department	...	193. 0 6	IV. Items adjustable by Military Miscellaneous	4,315 7 8	4,315 7 8
			Accounts Current—		
			Account between Bombay and Military, Bombay—		
			IV. Items adjustable by Military Miscellaneous...	50,964 10 10	50,964 10 10
			Account between Bombay and P. W. D., Bombay—(Ordinary Branches)—		
			IV.—Items adjustable by P. W. D.	6,094 14 5	6,094 14 5
			Account between Bombay and P. W. D., (Railway Branches) N. W. Railway—		
			IV. Items adjustable by P. W. D.	3,93,501 4 10	3,93,501 4 10
			Do. Do. Hyderabad Umarkot Railway ...	3,057 0 1	3,057 0 1
			Closing Balances	...	83 13 0
Total Rs...	...	14,17,235 13 8	Total Rs...	...	14,17,235 13 8

No. F. / 12541.

Forwarded to the Conservator of Forests, Sind Circle, under Section 238 of the Forest Department Code.

Accountant General's Office,
Bombay, 3rd August 1892.

GODREZJI D. PADAMJI,
for Accountant General.

FORM No. 60.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE—REVENUE RECEIVED AND OUTSTANDINGS ON ACCOUNT OF REVENUE DURING 1891-92.

Divisions.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during the year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Sukkur ...	I.—Timber and other produce removed from the forests by Government agency—						
	(a) Timber	.....	16,494 3 1	16,494 3 1	16,449 12 11	44 6 2	
	(b) Firewood and charcoal	253 0 0	2,00,816 15 1	2,01,069 15 1	1,93,914 14 9	7,155 0 4	
	(e) Grass and other minor produce	.....	69 2 3	69 2 3	69 2 3	.....	
	II.—Timber and other produce removed from the forests by consumers or purchasers—						
	(a) Timber	.....	5,972 4 10	5,972 4 10	5,972 4 10	.....	
	(b) Firewood and charcoal	.....	22,656 9 11	22,656 9 11	22,656 9 11	.....	
	(d) Grazing and fodder grass	.....	17,133 6 0	17,133 6 0	17,133 6 0	.....	
	(e) Other minor produce	.....	1,978 14 3	1,978 14 3	1,978 14 3	.....	
	III.—Confiscated, drift and waif wood	.....	1 12 0	1 12 0	1 12 0	.....	
	Total...	253 0 0	2,65,123 3 5	2,65,376 3 5	2,58,176 12 11	7,199 6 6	
Naushahro	I.—Timber and other produce removed from the forests by Government agency—						
	(a) Timber	.....	1,262 5 1	1,262 5 1	1,262 5 1	.....	
	(b) Firewood and charcoal	.....	1,11,405 5 3	1,11,405 5 3	1,11,405 5 3	.....	
	(e) Grass and other minor produce	.....	20 12 0	20 12 0	20 12 0	.....	
	II.—Timber and other produce removed from the forests by consumers or purchasers—						
	(a) Timber	.....	963 1 6	963 1 6	963 1 6	.....	
	(b) Firewood and charcoal	.....	3,712 10 1	3,712 10 1	3,712 10 1	.....	
	(d) Grazing and fodder grass	.....	10,151 4 6	10,151 4 6	10,151 4 6	.....	
	(e) Other minor produce	.....	2,815 1 0	2,815 1 0	2,815 1 0	.....	
	III.—Confiscated, drift and waif wood	.....	47 0 0	47 0 0	47 0 0	.....	
	Total...	.....	1,30,377 7 5	1,30,377 7 5	1,30,377 7 5	.....	

Hyderabad						
I.—Timber and other produce removed from the forests by Government agency—						
(*a*) Timber	275 0 0	26,882 4 7	27,157 4 7	26,882 4 7	275 0 0	
(*b*) Firewood and charcoal	1,128 0 5	1,46,447 8 11	1,47,575 9 4	1,45,685 4 6	1,890 4 10	
(*e*) Grass and other minor produce	.....	136 12 0	136 12 0	136 12 0	.....	
II.—Timber and other produce removed from the forests by consumers or purchasers—						
(*a*) Timber	.....	907 10 7	907 10 7	907 10 7	.....	
(*b*) Firewood and charcoal	.....	3,648 3 0	3,648 3 0	3,648 3 0	.....	
(*d*) Grazing and fodder grass	.....	16,825 1 6	16,825 1 6	16,825 1 6	.....	
(*e*) Other minor produce	.....	11,934 0 10	11,934 0 10	11,934 0 10	.....	
III.—Confiscated, drift and waif wood	.....	12 0 0	12 0 0	12 0 0	.....	
Total...	1,403 0 5	2,06,793 9 5	2,08,196 9 10	2,06,031 5 0	2,165 4 10	
Jerruck ...						
I.—Timber and other produce removed from the forests by Government agency—						
(*a*) Timber	.....	43,601 13 3	43,601 13 3	43,601 13 3	.....	
(*b*) Firewood and charcoal	255 12 0	81,495 11 7	81,751 7 7	81,734 7 7	17 0 0	
(*e*) Grass and other minor produce	.....	171 3 6	171 3 6	171 3 6	.....	
II.—Timber and other produce removed from the forests by consumers or purchasers—						
(*a*) Timber	32 15 3	596 4 4	629 3 7	629 3 7	.....	
(*b*) Firewood and charcoal	.....	329 8 6	329 8 6	329 8 6	.....	
(*d*) Grazing and fodder grass	3 4 0	14,890 15 0	14,894 3 0	14,890 15 0	3 4 0	
(*e*) Other minor produce	.....	4,414 6 2	4,412 6 2	4,414 6 2	.....	
III.—Confiscated, drift and waif wood	.....	1 8 0	1 8 0	1 8 0	.....	
Total...	291 15 3	1,45,501 6 4	1,45,793 5 7	1,45,773 1 7	20 4 0	
Total Sind Circle.						
I.—Timber and other produce removed from the forests by Government agency—						
(*a*) Timber	275 0 0	88,240 10 0	88,515 10 0	88,196 3 10	319 6 2	
(*b*) Firewood and charcoal	1,636 12 5	5,40,165 8 10	5,41,802 5 3	5,32,740 0 1	9,062 5 2	
(*e*) Grass and other minor produce	.....	397 13 9	397 13 9	397 13 9	.....	
II.—Timber and other produce removed from the forests by consumers or purchasers—						
(*a*) Timber	32 15 3	8,439 5 3	8,472 4 6	8,472 4 6	.....	
(*b*) Firewood and charcoal	.....	30,346 15 6	30,346 15 6	30,346 15 6	.....	
(*d*) Grazing and fodder grass	3 4 0	59,000 11 0	59,003 15 0	59,000 11 0	3 4 0	
(*e*) Other minor produce	.....	21,142 6 3	21,142 6 3	21,142 6 3	.....	
III.—Confiscated, drift and waif wood	.....	62 4 0	62 4 0	62 4 0	.....	
Grand Total...	1,947 15 8	7,47,795 10 7	7,49,743 10 3	7,40,358 10 11	9,384 15 4	

Hyderabad,
30th September 1892.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 61.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.

Outstandings and Liabilities on account of Contractors and Disbursers for 1891-92.

Divisions.	Department Debtor.			Department Creditor.			Balance due		Remarks.
	At commencement of year 1891-92.	Recoveries in cash and value of supplies and work done during the year 1891-92.	At close of year 1891-92.	At commencement of year 1891-92.	Payments made during the year 1891-92.	At close of year 1891-92.	To Department (outstandings.)	By Department (Liabilities.)	
Contractors.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Hyderabad	...	14,145 12 2	14,145 12 2	...	14,145 12 2	14,145 12 2	...	...	
Jerruck	....	27,210 9 5	27,210 9 5	12,048 0 0	17,962 9 5	30,010 9 5	2,800 0 0	...	
Naushahro	...	8,144 2 8	8,144 2 8	...	8,144 2 8	8,144 2 8	...	...	
Sukkur	...	3,733 5 4	3,733 5 4	...	3,733 5 4	3,733 5 4	...	...	
Total Contractors...	...	53,233 13 7	53,233 13 7	12,048 0 0	43,985 13 7	56,033 13 7	2,800 0 0	...	
Disbursers.									
Hyderabad	...	32,821 11 2	32,821 11 2	2,030 3 5	32,454 2 0	34,484 5 5	1,662 10 3	...	
Jerruck	...	18,645 0 5	18,645 0 5	3,273 9 2	19,719 11 2	22,993 4 4	4,348 3 11	...	
Naushahro	...	11,067 9 6	11,067 9 6	690 6 10	10,503 6 8	11,193 13 6	126 4 0	...	
Sukkur	...	13,780 13 7	13,780 13 7	899 4 3	13,737 8 0	14,636 12 3	855 14 8	...	
Total Disbursers...	...	76,315 2 8	76,315 2 8	6,893 7 8	76,414 11 10	83,308 3 6	6,993 0 10	...	
Grand Total...	...	1,29,549 0 3	1,29,549 0 3	18,941 7 8	1,20,400 9 5	1,39,342 1 1	9,793 0 10	...	

No. F. / 12862.

Forwarded to the Conservator of Forests, Sind Circle, under Section 238 of the Forest Department Code.

Accountant General's Office,
Bombay, 6th August 1892.

A. T. COX,
Accountant General, Bombay.

FORM No. 62.

FOREST DEPARTMENT, SIND CIRCLE.

Financial results of the year 1891-92.

Divisions.	Timber and other produce removed from the Forests by Government Agency.		Other Revenue.		Formation, protection and improvement of Forests.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Sukkur	2,10,434	1,49,466	60,294	12,526	15,274	2,70,728	1,77,266	
Naushahro	1,12,688	85,459	31,466	6,153	7,087	1,44,154	98,699	
Hyderabad	1,72,704	1,06,210	37,689	7,464	10,602	2,10,393	1,24,276	
Jerruck	1,25,507	88,313	23,428	5,836	7,546	1,48,935	1,01,695	
Total... ...	6,21,333	4,29,448	1,52,877	31,979	40,509	7,74,210	5,01,936	

Hyderabad,
30th September 1892.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

Statement showing the progress of Forest Demarcation and Settlement Works in the Sind Circle for 1891-92.

Class of Forest.	At the commencement of the year. Area under Section 34 in which private rights have not been enquired into, settled and recorded.	Area settled during the year under		Area of reserved Forests alienated under Section 26.	Area of protected Forests disforested under Government orders.	At the end of the year. Areas under Section 34 in which private rights have not been enquired into, settled and recorded.
		Chapter II of the Act.	Chapter IV of the Act.			
	Square miles.	Square miles.	Square miles.	Square miles.	Square miles.	Square miles.
Reserved Forests	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.
Protected Forests... ...						

Hyderabad,
30th September 1892.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

No. 48 OF 1893.

REVENUE DEPARTMENT.

Commissioner's Office,
Camp Jacobabad, 8th January 1893.

Submitted to Government. The Commissioner much regrets the delay in submission, principally due to printing.

2. The area of reserved forest in Sind is approximately 6,16,263 acres, but of this only 3,10,260 acres, or a little more than one-half are reported to be really productive. The remainder consists of inland reserves, which have perished owing to the cutting off of the water-supply, and of new alluvial tracts which have not yet begun to be productive. The necessity for increasing the real forest area in order to meet increasing demands has already been brought to the notice of Government, and Mr. Barrow has been appointed Forest Settlement Officer under Government Resolution, No. 8431 of the 27th October 1892. When his work is completed, a new calculation of the actual forest areas will be made.

3. The question of the location of the new reserves which must be acquired is one which can only be decided in one way. The spontaneous growth of forest can now only take place in the area between the protective embankments on each side of the river, to which the inundation is confined, and inland forests can only be maintained by artificial irrigation, the cost of which would in most cases be prohibitive. For this reason the Commissioner was compelled reluctantly to abandon the idea of establishing fresh inland reserves, and accepted the conclusion that for any considerable extension of the area of productive forest we must look to the alluvial tracts along the banks of the river. The instructions quoted in para. 8 of the Deputy Conservator's report were accordingly issued, and the Commissioner believes that they will result in large and valuable additions to the forest reserves, without materially interfering with the extension of cultivation. The instructions only contemplate the afforestment of permanent alluvial land which is already covered with a growth of jungle. When the Deputy Conservator goes further and proposes that all new alluvial tracts wherever formed should be added to the forest reserves, the Commissioner is bound to express his emphatic dissent. Much of the land along the banks of the river is occupied and if, in case of erosion, the occupants are debarred from finding compensation in the new land formed elsewhere, a large number of industrious cultivators will yearly be left landless and homeless. The finest wheat land in the Province is found in the kachas, and it would be bad economy to withdraw from cultivation land which, owing to its instability, might never last long enough to yield a single load of firewood. In many cases a newly formed "kacha" does not endure ten years before it is swept away. In that period it might yield five or six wheat harvests; while if added to the forests, it might disappear before a single tree became fit to cut. It would be folly to sacrifice revenue, and inflict serious injury on a large class of the population for the sake of adding a large area of alluvial land, the greater part of which would never be productive to the forest reserves. But Government will probably not attach too much importance to the views of an officer who finds it possible to state that "far more than railways and irrigation works, far more than on schools and police organisation, the weal or woe of a country depends on the use made of its forests." The Commissioner would at the same time add that he by no means contemplates the entire abandonment of some of the (now) useless inland reserved tracts. Some may be found capable of irrigation by the surplus waters of the projected Shikarpur Canal, others by the Begari, when that canal has been relieved of its present strain. Where there is a possibility in the future of forests being re-formed in such areas, especially along the railway line to Quetta, the Commissioner would retain them, for as observed on one occasion by Government, an inland forest, if a success, is more valuable than one that is exposed to erosion from the river.

4. The reserves are reported to have gained an area of upwards of 2,000 acres by the action of the river during the year under report. But whatever the effect may be on the area, it may be said that, as a general rule, changes in the river are detrimental to the forests, since at least some portion of the area lost is productive, while the new accretions cannot be of much use for several years. The Deputy Conservator in para. 11 alludes to the Thar and Parkar reserves. These have not yet been placed under him, both on account of the expense, and because he has quite enough to do just at present elsewhere.

5. In the section of the report devoted to "Survey, Working Plans and Annual Operations," the Deputy Conservator shows that the management of the Sind Forests has hitherto left much to be desired. The difficulties in the way of framing satisfactory working plans have, perhaps, been exaggerated; and the Deputy Conservator himself shows in para. 16 of his report that it is quite possible to devise a working plan which will be at once simple and effective. But the yield of the forests has been diminished by the wasteful and ill-regulated cuttings of the contractors through whom the Department has for some time been working; and as it appears to be impossible to keep a proper check on the contractors' work, it will probably be necessary to resort to the system of departmental cutting. An experiment in this direction is being made on a considerable scale, the results of which will be reported next year.

6. The Commissioner regrets to notice that there has been a very large increase in the number of cases dealt with under Section 67 of the Indian Forest Act. Cases of illicit grazing rose from 1,296 to 2,311, almost double, and cases of theft from 317 to 412. The explanation given by the Deputy Conservator, *viz.*, that owing to the scarcity of fodder elsewhere owners of cattle migrated in great numbers to the borders of the forests, might be accepted with more confidence if the increase had been in any degree evenly distributed among the divisions. But the Sukkur Division, in which the cases of illicit grazing were trebled and those of theft more than doubled, is responsible for the greater part of the increase. It seems highly probable that the increase in the number of petty offences dealt with by the forest officers, is due to greater stringency in enforcing the law on the part of the officer who was in charge of the Sukkur Division, Mr. G. M. Ryan. The Commissioner will see that the Deputy Conservator controls the action of the Divisional officers in dealing with petty offences, and carries out loyally the declared policy of Government in this respect.

7. The Deputy Conservator's disquisition on free grazing may be dismissed with the remark that there is no possible analogy between compact, well defined forests, and the straggling, unfenced jungles interpersed with cultivated land which form a considerable part of the new forest reserves in Sind. There are many places in which considerable areas of cultivated land are almost entirely ringed in by forest reserves, and the cattle cannot stray a yard off the occupied land without trespassing in reserved forests. Under such circumstances the grant of the privilege of free grazing on a liberal scale was an essential condition to the formation of the new reserves; and the officers of the Forest Department having received them on these terms should not now criticise or cavil at them. The Deputy Conservator is entirely in error in supposing that there has been any confusion between rights and privileges. On this point it will be sufficient to quote the instructions issued by Mr. Erskine to the Forest Settlement Officer, which were carefully observed, and will be observed by Mr. Barrow, the present Forest Settlement Officer:—

> "When he has finally completed his enquiry into the existence, nature, and extent of the rights in any reserved forest, the Forest Settlement Officer may in reporting the completion of his enquiry, make any suggestions or recommendations he may think proper as to the continuance or otherwise of any privileges or concessions not amounting to rights which he considers the people in the neighbourhood of the forest have enjoyed, or should be allowed to enjoy. These recommendations should, however, be kept quite distinct from the judicial finding or decision as to rights, and should on no account be mixed up or confused with the Settlement Officer's formal proceedings under the Act."

The Commissioner does not approve of the Deputy Conservator's suggestion that an officer of the Forest Department should be deputed to be present at the inquiry held by the Forest Settlement Officer, in order to watch the interests of the Department; and is satisfied that full confidence may be placed in the Forest Settlement Officer's judgment and discretion. It is clear that so long as the officers of the Forest Department are animated by the feelings shown in this report, it will be absolutely necessary that they should be kept under the strict control of the general administration in order to insure that the policy of Government in forest matters is faithfully carried out. Mr. Hexton has, however, the Commissioner is bound to say, always shown a ready desire to carry out the orders of Government, and Mr. James has every confidence that his zeal for his charge will always be tempered by his wish to loyally carry out instructions.

8. By far the greater part of the revenue of the Forest Department in Sind comes from the sale of firewood and charcoal. Thus out of a gross revenue of Rs 7,74,210, a sum of no less than Rs. 5,63,086 was derived from this source. Of the remainder the receipts on account of timber amounted to Rs. 96,668, grazing and fodder grass to Rs. 59,090, assessment on cultivation to Rs. 27,410, and minor produce to Rs. 21,539.

9. There was a very considerable increase in the yield of timber, firewood and charcoal, the outturn of firewood alone being 30,08,027 maunds, as compared with 27,40,900 maunds in the previous year. The North-Western Railway was, as usual, the largest customer, taking 18,63,527 maunds as against 16,98,751 in the previous year. But the most marked feature in the year's returns is the increase in the demand for fuel by other consumers. The Ferry steamers, the Commissariat Department, the Karachi Port Trust, the Hyderabad and Sukkur Municipalities, all increased their demands. As the use of steam power spreads in Sind, and the needs of Baluchistan develop, there is no doubt that the demand for fuel will continue to increase, and the steps which have been taken to provide enlarged and more constant sources of supply, were urgently required.

10. The Deputy Conservator considers that the financial results of the year are satisfactory because the net revenue is the largest on record, being Rs. 4,583 more than in the previous year. But an examination of the figures shows that this slight increase has been obtained at a very heavy cost. The increase of Rs. 93,318 in the gross receipts was almost swallowed up by the increase of Rs. 88,755 in expenditure on account of conservancy and works. The poor return for the increased expenditure is not to be accounted for by the accumulation of stocks at the depôts, since it appears that the value of the stocks has actually decreased by Rs. 1,766. It would seem that under the present arrangement an increase in the yield of the forests is not followed by a proportionate increase in the net profits, and that after a certain point the receipts from larger sales do little more than cover the cost of production. The Commissioner will be glad to receive a report on this point from the Deputy Conservator.

11. It is stated that it has been necessary to supplement the supply of the reserved forests by cuttings from uncultivated waste lands covered with jungle; but the Commissioner has not been able to discover from the report to what extent the Forest Department is indebted to this extraneous source of supply. The receipts of the Forest Department represent not only the revenue derived from reserved and protected forests, but also the revenue derived from the sale of wood grown in various tracts of ordinary waste land; and until it is known how much revenue is derived from each source, it is impossible to form any estimate of the true value of the forest reserves. In future reports the receipts under all heads from forest reserves should be clearly distinguished from receipts from other sources; and, if possible, the information should be supplied for the year to which this report relates.

12. The Commissioner has felt bound to dissent from some of the opinions expressed by the Deputy Conservator; but he fully recognises Mr. Hexton's earnest desire for the well-being of his Department and the strenuous efforts which he has made to improve its working.

13. The sketch map forwarded, and alluded to in the Deputy Conservator's first paragraph, has not been reproduced, as it was coloured and on too large a scale, and the construction of further maps may be postponed till after the Forest Settlement Officer has completed his work.

H. E. M. JAMES,
Commissioner in Sind.

No. 4914.

REVENUE DEPARTMENT.

Bombay Castle, 8th July 1893.

Letter from the Conservator of Forests, N. C. (now Conservator of Forests, C. C.), No. 4708, dated 12th December 1892—Forwarding the Forest Administration Report of the old Northern Circle for the year 1891-92, with its subsidiary statements.

Memoranda from the Commissioners, N. D. and C. D., Nos. 104 and R-479, dated respectively the 11th January and 1st February 1893—Submitting the above with their remarks.

Letter from the Conservator of Forests, S. C., No. 3123-A., dated 15th September 1892—Forwarding the Forest Administration Report of the Southern Circle for the year 1891-92, with its subsidiary statements.

Memorandum from the Commissioner, S. D., No. 116, dated 9th January 1893—Submitting the above with his remarks.

Letter from the Deputy Conservator of Forests, Sind Circle, No. 1668, dated 30th September 1892—Forwarding the Forest Administration Report of the Sind Circle for the year 1891-92, with its subsidiary statements.

Memorandum from the Commissioner in Sind, No. 48, dated 8th January 1893—Forwarding the above with his remarks.

Letter from the Conservator of Forests, C. C., No. 1007, dated 23rd May 1893—Forwarding certain corrections to be made in the figures and statements embodied in the Annual Administration Report of the old Northern Circle for 1891-92.

Memorandum from the Commissioner, C. D., No. R.—2308, dated 6th June 1893—Forwarding the above.

RESOLUTION.—The changes that have taken place in forest areas are reported to be as follows :—

Circle.	Area on 1st April 1891.		Added.		Excluded.		Area on 31st March 1892.		Total Forest-Area.
	Reserved.	Protected.	Reserved.	Protected.	Reserved.	Protected.	Reserved.	Protected.	
	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.
Northern Circle ...	$7,291\frac{148}{640}$	$994\frac{296}{640}$	$142\frac{344}{640}$	...	$76\frac{208}{640}$	$202\frac{450}{640}$	$7,357\frac{289}{640}$	$791\frac{486}{640}$	$8,149\frac{135}{640}$
Southern Circle ...	$1,888\frac{7}{640}$	$3,411\frac{625}{640}$	$91\frac{532}{640}$	$7\frac{478}{640}$	$2\frac{527}{640}$	$15\frac{205}{640}$	$1,977\frac{12}{640}$	$3,404\frac{258}{640}$	$5,381\frac{270}{640}$
Sind Circle... ...	$991\frac{212}{640}$	$1\frac{245}{640}$	...	...	$4\frac{252}{640}$	...	$986\frac{600}{640}$	$1\frac{245}{640}$	$988\frac{205}{640}$
Total ...	$10,170\frac{367}{640}$	$4,407\frac{526}{640}$	$234\frac{236}{640}$	$7\frac{478}{640}$	$83\frac{342}{640}$	$218\frac{15}{640}$	$10,321\frac{261}{640}$	$4,197\frac{349}{640}$	$14,518\frac{610}{640}$

2. The forest area of the Karjat Táluka of Thána added by transfer during the year to the Southern Circle should of course tally with the area excluded on the same account from the Northern Circle. But a comparison of the statements attached to the reports, and the explanations thereof (paragraphs 17 and 20 (2) of the Northern Circle and paragraphs 14, 26 and 27 of the Southern Circle report) show that Mr. Shuttleworth has not entered as excluded forest *all* the area so transferred, and that his remark in paragraph 20 (2), that the area of the Reserved Forests of the Karjat Táluka with the Khálápur Petha is 64 square miles 7 acres only, is evidently incorrect. Mr. Wroughton's statement correctly shows as Reserved Forest area added to Kolába 14 square miles 154 acres in addition to the 64 square miles 7 acres which are entered as excluded area opposite South Thána in Mr. Shuttleworth's statement. This area of 14 square miles 154 acres no doubt represents lands in the Karjat Táluka which were notified under Section 19 under Notification No. 3039-D, dated the 4th May 1891. The omission above pointed out should be rectified and an amended statement submitted.

In the statement of area and boundaries for the Southern Circle no account is taken of the 12 square miles $556\frac{5}{40}$ acres of Protected Forests added during the year (*vide* paragraph 15) in the Sirsi Subdivision of Kánara. An amended statement should therefore be submitted.

3. In the Northern Circle 142 square miles have been added to the Reserved area. The gain is mainly due to the final inclusion in Reserved Forests of the demarcated lands of Dindori (Násik) and Váda (Thána), which have contributed respectively 86 and 37 square miles. Other minor additions have been made in Taloda (West Khándesh) and Khatáv (Sátára). At the same time 76 square miles have been taken from the Reserved area of the Northern Circle. This loss is almost entirely accounted for by the transfer of the Karjat Táluka from the Northern to the Southern Circle. The real loss is insignificant and due to the disforesting for various reasons of scattered lands in the process of final selection of boundaries. No additions have been made to Protected area in the Northern Circle. On the other hand, about 202 square miles are shown as excluded. Of this area, however, about 35 square miles were converted during the year into Reserved Forests in Váda (Thána), while in the Panch Maháls 72 square miles in the Dohad range and 41 square miles in the Jhálod range are to be similarly converted, but have not been entered as additions to Reserved area, the notifications respecting them under Section 19 of the Forest Act not having yet been published.

4. The changes of area in the Southern Circle, other than those arising from the Karjat transfer, are due to the conversion of about 13 square miles of Protected into Reserved Forest in 17 villages of the Sirsi Sub-division of Kánara in accordance with the sanctioned demarcation.

5. In Sind no additions to forest area have been made. But 4 square miles 252 acres have been lost, partly by erosion and partly by disforestment. The area of the Sind forests owing to frequent erosions must vary more or less from year to year, and there does not appear to be any need for a detailed and expensive survey. The necessity of increasing the productive forest area to meet the growing demands of the Province has been recognised and when the additional area required has been finally selected, a fresh calculation of the total forest area will have to be made. In making the selections of alluvial lands for new reserves the special officer recently appointed will no doubt make due provision in accordance with the Commissioner's advice for the wants of cultivators whose lands may be lost by erosion. It is out of the question, as Mr. James rightly points out, that *all* new alluvial lands wherever formed should be added to forests. Erosions and accretions may be expected to balance each other in the long run. But if all the accretions were to be absorbed in forests, as proposed by Mr. Hexton, leaving no land to take the place of cultivated areas lost by erosion, cultivation on the banks of the Indus would sooner or later entirely disappear.

6. The selection of lands for forests had been completed in 76 out of the 84 forest tálukas in the Northern Circle, Thána and Khándesh being the only districts in which demarcation work still remained to be done. Good progress, however, was made in Khándesh by Mr. Dodgson, and as soon as orders have been passed by Government on proposals for the Taloda and Pimpalner táluks the demarcation of that district will be practically complete.

The comparatively small progress made in Thána is disappointing; but, as has been explained in paragraphs 26 and 28 of Mr. Shuttleworth's report, Mr. McIver's work was greatly hindered by the unhealthiness of the season. In Kánara, though a fair amount of demarcation work appears to have been done, much still remains; while in Belgaum and Dhárwár Mr. Knight, having charge of an Assistant Collector's office for the greater part of the season, was unable to make any satisfactory progress. Government concur in the Commissioner's remarks as to the necessity of appointing a second full-time Forest Settlement Officer for Kánara and hope on Mr. Wingate's return from furlough to be able to carry out this recommendation.

7. The progress made in the settlement of old forests notified under Section 34 is shown in the following table:—

Circle.	Class of forests.	At the commencement of the year, areas under Section 34 in which private rights had not been enquired into, settled or recorded.	Areas settled during the year.		Area of Reserved Forests alienated under Section 26.	Area of Protected Forests disforested under Government Orders.	At the end of the year, areas under Section 34 in which private rights have not been enquired into, settled or recorded.
			Under Chapter II of the Forest Act.	Under Chapter IV of the Forest Act.			
		Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.	Sq. Miles.
Northern Circle ...	Reserved... ...	820	11	...	...	...	809
	Protected ...	560	...	$18\frac{320}{640}$	...	...	$541\frac{320}{640}$
Southern Circle ...	Reserved	$381\frac{75}{640}$	$13\frac{371}{640}$	...	...	...	$367\frac{344}{640}$
	Protected ...	$2,459\frac{36}{640}$	...	$1\frac{556}{640}$	...	$\frac{9}{640}$	$2,446\frac{111}{640}$
Sind Circle... ...	Reserved... ...	.....	...	...	...	...	.....
	Protected ...	.....	...	...	...	...	.....
Total ...	Reserved... ...	$1,201\frac{75}{640}$	$24\frac{371}{640}$	...	...	...	$1,176\frac{344}{640}$
	Protected ...	$3,019\frac{36}{640}$	...	$31\frac{236}{640}$	...	$\frac{9}{640}$	$2,987\frac{431}{640}$

The work is still much in arrears in Kánara and Bijápur and in both divisions of Thána. It has been completed in all the divisions of the Northern Circle except Thána. The area of the Dángs in Surat, to which the Forest Act does not apply, need not be entered in future in the statement attached to paragraph 25 of Mr. Shuttleworth's report. In Kolába only a small area of old forest contained in four villages in Nágothna still remains to be settled, and the Collector should see that this work is completed without delay. In the statement appended to paragraph 33 of the Southern Circle report, 13 square miles 371 acres dealt with during the year in Kánara are wrongly shown as Protected instead of Reserved Forest, and the figures in the last column of the statement showing the areas in which rights have still to be inquired into are consequently incorrect. An amended statement should be submitted.

8. The settlement of lands provisionally notified under Section 4 appears to have been completed only in Násik and Surat; but creditable industry was shown during the year in finishing up odds and ends of settlement work in Ahmednagar and Poona, by acquiring occupied lands required for forests by purchase or exchange.

9. The attention of the Conservator, S. C., should be drawn to the Commissioner's remarks in paragraphs 4 and 5 of his forwarding memorandum, and an explanation should be given of the way in which the average cost per square mile of settlement operations has been calculated. The cost is shown in the report to have been Rs. 141·7 per square mile in 1891-92 as against Rs. 22·65 in the preceding year. It is doubtful if the cost of settlement operations, calculated by dividing the total expenditure by the number of square miles of which the settlement was completed in any particular year, can be otherwise than misleading. No account is taken of the actual field work done during the year. In years in which the greater part of the Forest Settlement Officer's time is taken up in selecting lands for forests in unsettled tálukas and less progress is made in settling areas for which the field work has previously been completed, the cost of settlement calculated as above will appear disproportionately high, while in other years, when less field and more settlement work is done, the cost will be comparatively low. Apparently there are no means by which the cost of the settlement operations per square mile of areas finally included in forests can be estimated with even approximate accuracy, until the entire work has been completed in a district. It may be observed that Mr. Nugent is in error in supposing that the salaries of Forest Settlement Officers are debited to forests, the cost of their establishments only being debited to that head.

10. The account given in paragraphs 49 and 50 of Mr. Shuttleworth's report as to the extent to which the permission of taking small branchwood, shrubs and undergrowth from the coupes of the season has been utilised, proves little as to the real demand for such material. As might have been expected

it was freely taken in the more accessible, and left to rot in the more distant, coupes. It is of course unavoidable that many fellings should take place in parts of the forest so remote from village sites and cultivation as to make the labour of transporting such material out of all proportion to its value either as small firewood or manure. The fact, however, presuming Mr. Shuttleworth's information to be reliable, that the material that was removed was taken almost entirely for firewood, and not to any extent for ash manure, shows that the villagers can as a rule get a sufficient and more convenient supply of ráb materials elsewhere. This inference is strengthened by the absence of all complaints of short supplies during the year. The experiments made in the North Thána Division with a view of ascertaining the volume of material placed at the disposal of the forest villagers by the concessions above alluded to are useful and might with advantage be continued. It may be gathered from the facts collected that a single coupe of 50 acres will provide about 500,000 lbs. weight or 445 tons of loppings, twigs and leaves. Assuming that half of this material could be utilised for ash manure and that an equal weight of grass was available, it would, taking Mr. Ozanne's Karjat experiment as the basis, provide ráb for about 100 acres of rice cultivation.

11. The progress made in the forest survey appears to be satisfactory, and Mr. Shuttleworth's explanation as to the difference of the mileage rates in the Northern and Southern Circles respectively may be accepted as correct. Mr. Wroughton should have given fuller information as to the work remaining to be done in his Circle.

12. The working plans division of the Northern Circle under Mr. Fry was, as in former years, principally occupied in laying out compartments in Thána, and it is satisfactory to note that the quantity of such work performed during the year was considerably in excess of that reported last year. The work has been pursued on the same lines as before and Government see no reason to doubt that the system adopted, if not theoretically the most perfect, is the one best suited to the local conditions of the Thána forests. Although the cost of the preparation of working plans in the Southern Circle has been comparatively small in proportion to the areas dealt with, the work of one party has been hindered by the difficulty in getting labour at the beginning of the season, while the collection of the *data* required for a great portion of the area is said to have been delayed owing to the inability of the Divisional Officer to keep pace with the preliminary work of the two parties working under him. It is hoped that better arrangements in this respect will be made in future.

13. Government agree with the Commissioner in thinking that Mr. Hexton has made too much of the difficulties attending a systematic working of the Sind forests. The plan which Mr. Hexton has described in the concluding portion of paragraph 14 of his report appears judicious. It is obvious that a demand equal to twice the annual yield cannot be met under any possible treatment. An increase in the productive area of the forests of Sind is no doubt urgently needed, and with this object in view Government have already appointed a Special Settlement Officer to make the necessary selections of land.

14. The following tables show (*a*) the number and result of prosecutions for forest offences, (*b*) the number of cases dealt with under Section 67 of the Forest Act, and the amounts paid as compensation in 1891-92 as compared with the preceding year :—

Table (a).

Circle.	1890-91.		1891-92.		Percentage of failures.	
	Prosecutions.	Acquittals.	Prosecutions.	Acquittals.	1890-91.	1891-92.
Northern Circle ...	1,433	322	1,262	274	22·4	21·7
Southern Circle ...	197	51	252	56	26	22
Sind Circle ...	59	23	35	14	39	40
Total ...	1,689	396	1,549	344	23·44	22·20

TABLE (B).

Circle.	1890-91. Cases compounded. Number of cases dealt with under Section 67.	1890-91. Cases compounded. Number of cases in which compensation was accepted.	1890-91. Amount realized.	1891-92. Cases compounded. For misappropriation of (a) Timber.	(b) Firewood.	(c) Minor Forest produce.	For (d) Other offences.	Total.	1891-92. Amount realized.
			Rs.						Rs. a. p.
Northern	*9,917	9,762	31,003	1,210	1,254	215	9,648	12,327	30,413 11 6
Southern	1,052	1,048	2,752	Not given.	Not given.	Not given.	Not given.	804	2,216 0 0
Sind	1,666	1,666	2,660	Not given.	Not given.	Not given.	29	2,752	3,418 0 0
Total ...	12,635	12,476	36,505	.....	.....	.....	.....	15,883	36,047 11 6

* For misappropriation of timber and wood 2,103
" minor forest produce 232
" other offences 7,582
Total ... 9,917

Note.—Out of 12,327 compounded cases in the Northern Circle for 1891-92 compensation was accepted in 11,812 cases.
Out of 804 compounded cases in the Southern Circle for 1891-92 compensation was accepted in 803 cases.

15. In reviewing the Forest Administration Reports for 1890-91, His Excellency the Governor in Council had occasion to comment severely on the very large number of trivial offences in which proceedings had been taken under Section 67 of the Forest Act, especially in the Northern Circle, contrary to the spirit of previous Government orders. The subject has been dealt with at great length in Government Resolution No. 7232 of the 12th September 1892, and in correspondence which has ensued thereon. The policy of Government in this matter has been already clearly declared, and the question as to the best means of giving practical effect to that policy, and of guarding, either by executive orders or rules under the Forest Act, against the abuses which may result from injudicious or over-zealous application of the existing provision of the Act for compounding offences, is receiving separate and careful consideration.

16. As will be seen from the statements attached to paragraph 14 above, fewer cases have been taken to the criminal Courts than in the preceding year, both in the Northern Circle and Sind, while the number of prosecutions has increased in the Southern Circle. The net result, taking all three Circles together, is a reduction from 1,689 cases in 1890-91 to 1,549 in 1891-92. Except in Sind there has been a slight improvement in the proportion of convictions to prosecutions.

The number of cases in which compensation was accepted under Section 67 has again risen in the Northern Circle from 9,762 in 1890-91 to 11,812 in 1891-92. The amount realised has at the same time decreased from Rs. 31,093 to Rs. 30,413. In Sind also the number of compounded cases has risen from 1,666 representing payments aggregating Rs. 2,660 to 2,752 realising Rs. 3,418. In the Southern Circle it is satisfactory to note a decrease in the number of cases from 1,048 yielding Rs. 2,752 to 804 yielding Rs. 2,216.

17. The total number of cases in the three Circles, including those brought into Court and those compounded in 1891-92 as compared with 1890-91, is shown below :—

	Total Number of Cases. 1890-91.	1891-92.
Northern Circle	11,350	13,587
Southern Circle	1,249	1,056
Sind	1,725	2,787
Total ...	14,324	17,430

Except in Thána and Surat the increase is general throughout all the divisions of the Northern Circle. The large decrease in the number of offences in the Northern Division of Thána affords satisfactory evidence of the success of the system now adopted of providing by means of numerous blocks and coupes abundance of cheap forest produce for local wants as well as export, and thus removing as far as possible all temptation to illicit cutting. The decrease in South Thána is also satisfactory, though it must be noted that the result in this case is not wholly due to the introduction of a better system. The transfer of the Karjat and Khálápur ranges to the Southern Circle and the dispersal of the labourers employed on the Tánsa Water-works have naturally had the effect of diminishing the number of cases in this Circle. The large increase in the number of forest offences which have occurred in Sind is attributed by the Conservator to scarcity of fodder and consequent trespass in forests. Government are satisfied that Mr. James will do all that is necessary to prevent unnecessary harshness in dealing with trivial offences. As regards the returns for the Southern Circle, which show a considerable reduction in the total number of cases dealt with, Government are glad to be able to endorse Mr. Nugent's opinion that there is no reason to criticise unfavourably the action taken by the Forest Department in that Circle in protecting forest property.

18. The number of animals impounded in the three Circles in the year under report, as compared with last year, was as follows :—

	For trespass in closed area.		For grazing in open area without passes.		Total under both heads.	
	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.
Northern Circle...	202,372	202,255	100,221	137,041	302,593	339,296
Southern Circle...	7,310	4,283	2,996	4,443	10,306	8,726
Sind Circle ...	7,894	10,981	10,211	12,861	18,105	23,842

The number of animals impounded for grazing without passes in open area has thus increased in all three Circles. The divisions of the Northern Circle which contribute the greatest number of cases under this head are East Khándesh, Násik, Poona, Sátára and Ahmednagar, which last division heads the list with a total of 48,365. It may be noted, however, that out of the total number of animals so impounded, *viz.* 137,041, no less than 86,745 were sheep and goats, owned for the most part by nomad professional graziers.

The number of animals impounded for trespass in closed areas in the Northern Circle is practically the same as last year, and the divisions mainly responsible for the large figures under this head are the same as those mentioned above with the addition of West Khándesh and Sholápur, the Ahmednagar Division heading this list also with a total of 46,708. Of the total number of animals, *viz.* 202,255, 96,850 or nearly half are reported to have been sheep and goats. The number of cases of trespass in closed areas has increased in Sind, but has decreased substantially in the Southern Circle.

19. The only division in the Northern Circle where there was a notable and satisfactory decrease in the number of cattle impounded is West Khándesh, where the total has fallen from 45,821 in 1890-91 to 24,500 in 1891-92, or nearly 50 per cent. Mr. Shuttleworth contends that ignorance of forest boundaries has nothing whatever to do with cattle trespass, and that "every little cow-boy in a forest village knows where the forest boundaries run, and the location and extent of the closed forest, and of the open or grazing areas." It may perhaps be doubted whether all the forest subordinates themselves possess this accurate knowledge, especially where the closed areas of forests are not visibly protected by fences. The remarks of the Collector of Khándesh, which Mr. Shuttleworth himself quotes in paragraph 121 of his report, to the effect that the decrease in cases of cattle trespass in that district is due to the people now "getting to know the

reserves better," clearly suggests the inference that the forest boundaries have not hitherto been so well understood as the Conservator believes, and that this ignorance is at any rate one of the causes which contribute to swell the number of cattle impounded. It has, however, been rightly pointed out, as appears from the remarks of Mr. Desái noticed in the extract from the remarks of the Collector of Kháńdesh quoted in paragraph 113 of Mr. Shuttleworth's report, that "the temptation to graze now in closed areas is greater than before." Where closure has been more or less effectively carried out for some years and the grass produce is in consequence yearly becoming more valuable, the temptation to trespass and the damage done by trespass must necessarily be greater. There must be many such areas liable to frequent inroads of cattle, where the increased value of the property to be protected would amply justify the expenditure which would be incurred in surrounding them with strong wire or other fencing. Some progress in this direction has already been made in the Northern Circle, and Government trust that Mr. Shuttleworth will be able to arrange gradually for the clear demarkation or the fencing of all such areas. By some such means it may be hoped that by degrees the large number of cases compounded and the enormous number of animals impounded may be reduced. The criticisms passed by Government in its review of the Administration Reports for 1890-91 could not affect the figures of the reports now reviewed: but His Excellency in Council regrets to have to notice that the warnings conveyed in the review of the Administration Reports for 1889-90 have not been effectual in reducing the figures. He trusts that he may not have again to comment adversely on this subject.

20. The total area burnt by forest fires in the Northern Circle, though less than the area burnt in the preceding year, is still very considerable. The energetic measures adopted by Mr. Sinclair in Thána, which ensure the effective co-operation of the Revenue and Police officers in the suppression of fires, have borne good fruit, the area burnt in the North and South Thána Divisions having been reduced from acres 53,539 and 85,300 in 1890-91 to 8,613 and 10,420 respectively in 1891-92.

The system adopted in Thána with such marked success will, under the orders conveyed in Government Resolution No. 757, dated the 27th January 1893, be introduced in all other forest districts, and Government have no doubt that with energy on the part of the Collectors the result will be a very large reduction in the area burnt in future years. It is satisfactory to note that the villagers in the East Khándesh Division willingly rendered help in putting out a large and destructive fire, and that in the Dángs also some valuable forest was successfully protected against fire by the cooperation of the local residents. In the Southern Circle the area burnt exceeds that reported last year, while the area protected was practically the same. But the proportion of area burnt to area protected is under 2½ per cent. in this Circle, while in the Northern Circle it exceeds 20 per cent. The comparatively small damage caused by fires in Kánara bears out the Commissioner's conclusion that the villagers in that district are not usually guilty of wilful incendiarism. The proportion of unprotected area which escaped is not shown in Mr. Shuttleworth's report, but is said to have been 74 per cent. in the Southern Circle. The area burnt in the Sind Circle, though more than double that burnt in the preceding year, is still comparatively insignificant.

21. The receipts from grazing and fodder grass have been as follows :—

	Amount.	
	1890-91.	1891-92.
	Rs.	Rs.
Northern Circle ...	3,61,983	4,35,923
Southern Circle	72,809	91,487
Sind Circle	56,875	59,000

The increased revenue derived from this source is due mainly to the higher fees levied under the rules issued in 1890. The new grazing rules were brought into force during the year throughout the Northern Circle except in the Panch Mahâls, the western tâlukas of Poona, the Peint Táluka of Násik and the greater part of Thána.

As far as can be judged from Mr. Shuttleworth's report and the opinions of the Collectors whom he has quoted, the new rules have worked smoothly. Government would have been glad, however, if Messrs. Reid and Fleet had, in reviewing the report, expressed their opinions on the subject, as it is on the supervision which the Commissioners may exercise that the success or otherwise of the new rules mainly depends.

22. Owing to the serious scarcity of fodder which occurred in some parts of the Southern Circle the operation of the new rules had to be suspended in three of the five districts in which they had been introduced, and all the forests, both above and below ghâts, were thrown open for free grazing. The value of the Kánara forests as fodder reserves in years of scarcity was, as Mr. Nugent observes, shown by the fact that no complaints were heard of cattle taking refuge in them dying for want of nutriment. In Poona in the Northern Circle scarcity of fodder was also felt during the year owing to deficient rainfall, and in this division also some relief was given by making certain closed areas in Bhimthadi and Indápur available for grazing.

23. The reports of the Conservators, N. C. and S. C., contain as usual interesting accounts of the results of natural and artificial reproduction in the various divisions under their respective charges. No special remarks, however, are necessary on this subject.

24. The Dáhánu-Jawhár road in the Thána District, which has been completed during the year under report at a total cost of Rs. 2,09,519, and the contemplated extension of the same road to the Násik District will be of great use in opening up the forests of Dáhánu and Mokháda. The Váda-Shirghát project, which will eventually give through communication between Pálghar on the B. B. & C. I. Railway and Ghoti on the G. I. P. Railway in the Násik District, will also very materially serve forest interests in making it possible to bring the produce of many valuable but hitherto almost inaccessible reserves to places where carriage by rail or water is already available. Government are glad to acknowledge the assistance which Mr. K. G. Desái, L.C.E., Executive Engineer, Thána, has rendered in planning and carrying out these and other useful projects for developing the resources of the Thána forests.

25. The financial results of the year are shown in the following table :—

Circle.	Receipts.		Expenditure.		Net Revenue.		Increase or Decrease of Net Revenue in
	1890-91.	1891-92.	1890-91.	1891-92.	1890-91.	1891-92.	1891-92.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Northern Circle	12,57,502	13,62,732	7,35,705	7,18,493	5,21,797	6,44,239	+1,22,441
Southern Circle	13,49,826	11,47,707	7,04,955	7,05,231	6,44,871	4,42,476	—2,02,395
Sind Circle	6,80,892	7,74,210	4,13,201	5,01,936	2,67,691	2,72,274	+4,583
Total ...	32,88,220	32,84,649	18,53,861	19,25,660	14,34,359	13,58,989	—75,371

26. The year has been a prosperous one in the Northern Circle. Notwithstanding the transfer of two ranges of South Thána to the Southern Circle, and the cessation of sales of timber in the same division to the Tánsa contractors, who were in previous years large consumers, the progressive increase in net as well as gross receipts has been well maintained. It is satisfactory to observe that in the

year under review, with a gross revenue of over 13½ lákhs, the expenditure, Rs. 7,18,493, has been less than it was in 1887-88, when the gross receipts fell short of 10 lákhs. The substantial increase in net revenue, *viz.*, Rs. 1,22,441, has been well earned by sound management and legitimate enterprise.

27. Departmental operations in the Northern Circle contribute a smaller proportion of the total outturn of forest produce than in the Southern Circle or Sind. The receipts under this head form, however, a considerable item in the accounts of Khándesh, Surat, Poona and Sátára. The cost of removing timber and other produce by Government agency has been reduced in 1891-92 to Rs. 46,596, as against Rs. 60,402 in the preceding year, while the receipts under the same head have risen from Rs. 2,17,435 to Rs. 2,37,647. Taking timber fellings by Government agency alone the cost has fallen from Rs. 46,067 in 1890-91 to Rs. 30,571 in 1891-92, while the receipts have risen from Rs. 1,64,147 to Rs. 1,67,391. In Thána, with the exception of a few out of the coupes which were unsold and a small cutting of the trees remaining on the Tánsa Duct strip, no timber was felled departmentally. In North Thána 5 out of 23 unsold coupes were felled by Government agency. There was, it appears, no demand at all for the material of 2 out of these 5 coupes, while the prices obtained for the produce of the remaining 3 coupes were so low that the net result of the operations was a loss of Rs. 171. Similarly in South Thána 2 only of the unsold coupes were felled, as the Collector considered that local wants could be sufficiently met from other sources. So long as local supply is not affected, and the wants of the villagers can be otherwise provided for, a matter regarding which the Collector is best able to judge, Government will not insist on the departmental felling of coupes for the produce of which there is no demand. It is most desirable, however, that as far as possible the coupes should be felled in regular rotation, otherwise the regularity and orderliness of the rotation system is lost; and it is deprived of its main advantage when, owing to areas that should have been cut in previous years being left standing, the Conservator's forecast of the area to be cut, and therefore of the quantity of timber he has to put on the market, is upset. Where a coupe has not been felled in its proper year every effort should be made to dispose of it in the following season.

28. The revenue of the Southern Circle shows a serious decrease, and for the first time since 1883-84 its gross receipts and net revenues have been exceeded by those of the Northern Circle. The gross receipts have fallen from Rs. 13,49,826 in 1890-91 to Rs. 11,47,707 in 1891-92. The expenditure remaining practically the same as in the preceding year, the net revenue has fallen from Rs. 6,44,871 to Rs. 4,42,476. This large decrease of over 2 lákhs is no doubt mainly due, as explained in Mr. Wroughton's report, to the serious scarcity which prevailed in the plain districts of the Southern Maratha Country, and the consequent paralysis in the timber trade of those tracts, and also to decreased demand for wood fuel owing to reduced traffic on the Southern Marátha Railway. These causes are fortunately of a special and temporary nature, and as a set-off against the loss of current revenue it may be observed that the value of timber on hand in the depôts of the Southern Circle at the close of 1891-92 exceeded by nearly 1¾ lákhs the value of the stock in hand at the close of the preceding year.

29. The gross revenue of the Sind Circle has risen from Rs. 6,80,892 to Rs. 7,74,210. But as the charges have at the same time risen from Rs. 4,13,201 to Rs. 5,01,936, leaving an increase in net revenue of Rs. 4,583 only, the financial result cannot be regarded as being wholly satisfactory. As an indication of the growing prosperity of the province, there has been a notable increase in the demand for fuel in Sind for railway and other purposes. This growing demand will no doubt tax the energies of the Forest Department for many years to come. The Deputy Conservator's attention should be called to the Commissioner's remarks in paragraphs 10 and 11 of his forwarding memorandum, in which Government concur. An increased yield under careful management should naturally be accompanied by a proportionate increase in net revenue, and when this is not the case, full explanation is necessary. It is also important, as Mr. James points out, that the receipts from forest reserves should be clearly distinguished from receipts from other supplementary sources, as it is otherwise impossible to estimate the real resources of the reserves themselves.

30. The returns of minor forest produce sold during the year include in all three Circles articles of which the sale in open forests will in future be left free and unrestricted under the principles laid down in Government Resolution No. 9846 of the 15th December 1892.

31. The acknowledgments of Government are due to Messrs. Shuttleworth, MacGregor and Hexton for the zeal and ability with which they have performed their duties during the year under review. Mr. Shuttleworth has had the pleasing task of recording the results of a particularly successful year's administration, and as this is the last occasion on which his reports will deal with the forests of Thána and Gujarát, His Excellency the Governor in Council takes this opportunity of expressing his sense of the valuable services which he has so long and so efficiently rendered in the management of the forests of those tracts. Mr. Wroughton has laboured under the disadvantage of compiling a record of work in which he took no personal part, but has nevertheless submitted a careful and interesting report. Mr. Hexton, in discussing certain subjects, has expressed opinions with which Government cannot concur and on which the Commissioner has commented with disapprobation. The Governor in Council is satisfied, however, that Mr. Hexton, like all other officers in the department, is actuated by a ready desire to carry out the orders of Government in the spirit in which they are issued. Government have in conclusion much pleasure in observing the harmonious relations which have subsisted between the Revenue and Forest officers during the year and the satisfactory results which have generally followed from their cooperation.

G. W. VIDAL,
Acting Chief Secretary to Government.

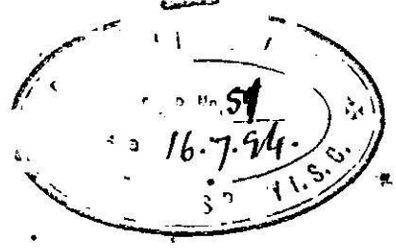
To

The Commissioner in Sind and the Commissioners of Divisions,
The Conservators of Forests, Central and Southern Circles,
The Deputy Conservators of Forests, Northern and Sind Circles,
All Collectors, including the Collectors and Deputy Commissioners in Sind,
The Survey Commissioner and Director of Land Records and Agriculture,
The Accountant General,
The Judicial Department of the Secretariat,
The Public Works Department of the Secretariat,
} With copies of the report.

The Secretary of State,
The Government of India,
} By letter.

The Editors' Tables, Bombay and Poona.

ADMINISTRATION REPORTS



OF THE

FOREST DEPARTMENT

IN THE

BOMBAY PRESIDENCY,

INCLUDING

SIND

FOR THE YEAR 1892-93.

Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1894.

Divisional Forest Offi...
Working Plans Pa. G. I.
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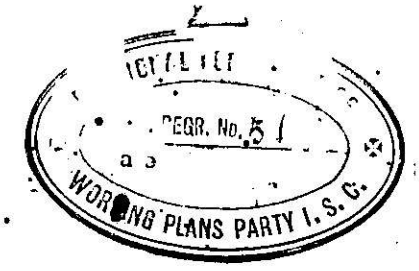

NORTHERN CIRCLE.

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FOREST ADMINISTRATION REPORT, NORTHERN CIRCLE, FOR 1892-93.

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FOREST ADMINISTRATION REPORT

OF THE

NORTHERN CIRCLE, BOMBAY PRESIDENCY,

FOR THE OFFICIAL YEAR 1892-93.

INTRODUCTION.

This is the first Annual Report submitted for the new Northern Circle, and a few statistics and general observations will not, on this occasion, be out of place in the introductory chapter.

2. The Bombay Presidency proper was for forest administrative purposes divided into three Circles, corresponding with the three Revenue Divisions, during the year, and the additional Circle thus formed was placed in independent charge of a Deputy Conservator. A permanent distribution of Imperial and Provincial officers and of establishments between the three Circles has not been made yet, and the distribution of officers and subordinates which existed at the time of the separation of the Circles continues, with the exception of an establishment of three clerks and two peons belonging to the old Northern Circle being seconded for duty in the new Circle.

3. The Northern Circle is formed of the three districts of Panch Mahâls, Surat and Thâna. The first two are in Gujarát and the last in the Konkan. The forests of the Dángs, which for political purposes are under the Central Division, continue to be administered through the Divisional Forest Officer, Surat. With this exception the forest divisional charges coincide with the fiscal divisions; the Thâna forests, however, being under the management and control of two Divisional Officers.

4. The total area of country in which the forests are situated is 7,870 square miles. The population according to the last census returns is 1,901,194 souls, showing an average of 241·57 per square mile. Excluding places with a population of less than 4,000 souls each, there are 17 towns distributed thus among the forest divisions:—

Division.	No.	Name of Town.	Population according to Census of 1891.
East and West Thâna	1	Bándra	18,317
	2	Thâna	17,455
	3	Bhiwndi	14,387
	4	Kalyán	12,608
	5	Kurla	11,469
	6	Bassein	11,291
	7	Agáshi	7,538
	8	Máhim	6,960
		Total	100,025
Surat	1	Surat	109,229
	2	Bulsár	14,779
	3	Ránder	10,926
	4	Párdi	4,686
	5	Bárdoli	4,278
	6	Chikhli	4,041
		Total	147,939
Panch Mahâls	1	Godhra	14,691
	2	Dohad	12,935
	3	Jhálod	5,991
	4	Kálol	4,464
		Total	38,081

5. The forest area administered in the Northern Circle measures approximately 2,233 square miles. This represents 28·37 per cent. of the total area of the districts in which it is situated and a little over three quarters of an acre per head of population. There is, in addition, a wide area of forest land held by the Gáikwár of Baroda, the Portuguese Government, the Rájás of Dharampor, Bánsda and Jawhár, and the Rewa Kántha and Rájpipla Chiefs, who are commencing to recognize the importance of forest conservancy, and a few of them are endeavouring to work their forests systematically.

6. The manner in which forests in foreign territory are mixed up with Government forests render the management of the latter at times difficult, but it does not interfere with the sale of their products to the extent, one would suppose, owing to the facilities offered for export to the Bombay and other markets.

7. The area of reserved forests was increased by 14,124 acres by settlement and decreased by 368 acres. It is hoped that, as a good start has now been made, the forest settlement and demarcation work remaining to be done will be completed in a year or two.

8. The Forest Survey Party has continued its operations in the two Thána divisions, and considerable progress has been made in triangulation, traverse and topographical surveys in the divisions concerned.

9. The operations of the Working Plans Branch were again confined to the Thána District, and much useful work has been accomplished.

10. In the matter of concessions, an important Government Resolution was issued during the year on the subject of trees in occupied lands in the Thána and Kolába districts surrendering the rights of Government, purely as an act of grace, over all forest produce outside forest limits, with the exception of teak (Tectona grandis), sissum (Dalbergia latifolia) and sandalwood (Santalum album), growing in occupied uplands, and of tiwas (Ougeinia dalbergioides) in lands under the Kolvan Settlement in addition to the above.

11. The forests of the Dángs were further opened out by transport roads at a cost of Rs. 403-13-10, and another rest-house for the use of officers was under course of construction during the year.

12. Crime, as represented by forest offences taken into Court and compounded by Forest officers under Section 67 of the Forest Act, was less. But the percentage of acquittals in the former class of cases increased from 16·03 in the year before to 26·5 during the year of this report. The number of cases compounded was 419 against 502 in the year 1891-92, and the compensation accepted for damage amounted to Rs. 1,025-3-1.

13. Forest fires both in number and extent show a progressive improvement, except in certain localities in Thána and Surat divisions, where the forests greatly suffered from fire.

14. The grazing revenue continues to be exceedingly low owing to the extent to which free grazing is allowed. But receipts from grass have considerably improved in the West Thána Division. The number of cattle impounded during the year was in excess of the past year, being 6,277 against 4,656.

15. The reproduction of the forests, both natural and artificial, was fairly satisfactory, the rainfall though late having been plentiful.

16. The financial prosperity of the divisions comprised in this Circle has been maintained. The year's gross receipts were greater than in the year previous by Rs. 21,132; but as the expenditure was more by a sum of Rs. 26,192, owing chiefly to the acquisition of land on the Tánsa catchment area by payment of money compensation, the net surplus was less by Rs. 4,960.

17. Timber operations contributed Rs. 5,31,209 towards the receipts of the Circle, and other sources of revenue Rs. 1,04,240

CHAPTER I.

EXTENSION AND CONSTITUTION OF STATE FORESTS.

(i). ALTERATION OF AREA.

18. During the year the reserved forest areas received an addition of 14,124 acres by settlement and transfer from protected forests and lost 368 acres by disafforestation.

19. The following statement shows the changes that have taken place in the area under the management and control of the Forest Department in the Northern Circle :—

Class of Forest.	On 1st April 1892.	Added during the year.	Excluded or transferred during the year.	On 30th June 1893.	Remarks.
	Sq. m. a.	Sq. m. a.	Sq. m. a.	Sq. m. a.	
Reserved	933 144	22 44	0 368	954 477	
Protected	601 386	.....	2 53	599 333	
Leased	678 320	.....	.....	678 320	

The additions to reserved area were chiefly due to the acquisition, in the Surat Division, of the A'malchuni forest measuring 229 acres, formerly personal inám, which on the death of the Inámdár reverted to Government, and to the conversion of 13,895 acres of protected forests in the Panch Maháls under Government Resolution No. 6867, dated 27th August 1892. The principal disforestment was in the East Thána Division, in which 233 acres of reserved and 1,331 acres of protected forests were excluded during the year, as the land in question now forms part of the Tánsa Lake basin.

20. The distribution among forest divisions of the legally constituted area on the 1st April 1892 and 30th June 1893 is now exhibited :—

Forest Division.	Area on 1st April 1892.	Area on 30th June 1893.	Difference.	Remarks.
	Sq. m. a.	Sq. m. a.	Sq. m. a.	
East Thána	589 297	678 288	+88 631	Váda Range included in East Thána for the purpose of this statement.
West Thána	679 384	588 147	—91 233	
Surat	*68 153	*68 382	+229	* Exclusive of the leased forests in the Dángs.
Panch Maháls	197 316	218 633	+21 317	
Total ...	1,534 530	1,554 170	.....	

21. Under the authority of Government Resolution No. 985, dated 4th February 1893, the following alterations in the two control charges of Thána were made ; the changes taking effect from 1st April 1893:—

(*a*) The divisions were called Eastern and Western instead of Southern and Northern, and

(*b*) The tálukas were redistributed as under :—

Eastern Division.	Western Division.
1. Kalyán.	1. Sálsette.
2. Sháhápur.	2. Bassein.
3. Mokháda (exclusive of the Taláhsri Mahál)	3 Máhim.
4. Bhiwndi.	4. Dáhánu.
5. Váda.	5. Umbargaon Petha.
6. Murbád.	6. Taláhsri Mahál.

22. The benefits obtained by this arrangement are the equalization of the areas of forests in the two divisions and greater facility of inspection. On the 30th June 1893, therefore, the forest area of the two divisions stood thus:—

Division.	Reserved Forest.		Protected Forest.		Total.	
	Sq. m	a.	Sq. m.	a.	Sq. m.	a.
East Thána...	352	569	325	359	678	288
West Thána	314	173	273	614	588	147
Total ...	667	102	599	333	1,266	435

(ii). FOREST SETTLEMENTS.

23. Forest settlement has been in progress with the following results in each of the forest divisions in which Forest Settlement Officers have been at work.

West Thána.

24. Considerable progress was made in the settlement of the forests of Máhim, Dáhánu and Umbargaon, *i.e.* in the ranges in which the work had yet to be done. The scheme which had been prepared by Mr. Owen, Forest Settlement Officer, but not completed by him before his departure on leave, was, during the year under review, revised and reported on by his successor Mr. McIver after personal inspection of the forests, followed by discussions with the Collector and the Divisional Forest Officer, but the final orders of Government had not been obtained before the close of the year.

25. The Forest Settlement Officer also worked in the Dáhánu and Umbargaon ranges during the year, and the forests of 19 villages in the former were settled, and the proposals are awaiting sanction of Government. If Mr. McIver's work had not unfortunately been interrupted owing to his failing health, on account of which he was obliged to take furlough on medical certificate at the commencement of April, he would have been able to show a much larger amount of work.

26. It is satisfactory to note, however, that a distinct advance has been made in the settlement of the forests of this division, and that really all that now remains to be done could probably be effected in one full season's successful work.

East Thána.

27. Government in their Resolution No. 9848, dated 15th December 1892, appointed Mr. Orr, I. C. S., as Forest Demarcation and Settlement Officer of the tálukas of Kalyán, Bhiwndi, Murbád and Sháhápur, including Mokháda of the Thána District and Karjat and Khálápur of the Kolába District.

28. From 5th January, the date of taking over charge, to 29th February 1893 he was chiefly engaged in the Kolába District of the Southern Circle, and did not commence work in the East Thána Division until the 1st March. During the last three months of the field season, however, he contrived to inspect minutely and finally report on all the forests in 25 villages of the Murbád Táluka aggregating 16 square miles. His order in respect to the right to tâhâl granted to the people in these villages has given rise to an appeal which

was preferred and decided after the close of the year. In his decision the Collector of Thána has upset the Forest Settlement Officer's award on the following grounds:—

"In this appeal the procedure of the Forest Settlement Officer has left me only one thing to do. He has held 25 separate and regular inquiries under Chapter I of the Indian Forest Act, 1878, upon certain rights claimed, and has then lumped the whole of them into a single 26th case upon the general right (as he considers it) to loppings of inferior trees for ash manure, which he apparently considers to be an incident of the tenure of rice land in the 25 villages concerned (though he does not say so in terms). No procedure could be more irregular or inconvenient, and one result of it has been that his proceedings do not include any single one of the particulars to be recorded under Section 12 of Indian Forest Act.

"Now it is certainly practicable in every village of the 25 to obtain a very complete record of the names and other details required by that section.

"And it is evidently very necessary that this should be done.

"I shall then know something of what is before me to decide upon.

"Mr. Orr's whole proceedings dated 6th May and 8th and 19th June, in respect of the combined villages, are cancelled, and he is directed to complete the separate inquiry in each of the 25 villages already begun, and to record the particulars required by Section 12.

"I cannot now pass any order upon his law as a separate matter, but I am inclined to think it possible that when he has completed the records, he will have found some cause for changing his opinion as to the privileges claimed.

"Meanwhile there is now no decision in force upon those claims."

Surat.

29. In this division nothing remains to be done, as forest settlement may be considered as having been completed for all practical purposes.

Panch Mahals.

30. The settlement of the whole of this district is approaching completion. The Forest Settlement Officer, Mr. Maconochie, I.C.S., having finished the settlement inquiries under Section 7 of the Indian Forest Act in regard of the remaining protected forest areas of Dohad and Jhálod, notified as proposed reserves on the 30th June 1891 in accordance with Government Resolution No. 2974, dated 30th April 1891, has submitted during the year a draft notification under Section 19 to Government for publication.

31. The following statement will show the tálukas in which forest settlement and demarcation has been completed and in which such work is still to be done:—

No.	Division.	Tálukas in which Forest Settlement and Demarcation has been completed.	Tálukas in which Forest Settlement and Demarcation is still to be completed.	Remarks.
1	East Thána ...	Kalyán, Bhiwndi, Mokháda.	Murbád, Sháhápur .	Work in progress.
2	West Thána ...	Bassein, Sálsette, Váda.	Dáhánu, Máhim, Umbargaon.	Work in progress; awaiting final orders of Government.
3	Surat	Mándvi, Bulsár, Párdi, Chikhli, Bárdoli.	.....	.....
4	Panch Mahals .	Godhra, Kálol, Hálol.	Dohad, Jhálod ...	Awaiting final orders of Government.

32. The forest area over which the proceedings of the several Settlement officers extended during the year is exhibited below;—

No.	Division.	Area.		Remarks.
		Sq. m.	a.	
1	East Thána	143¼	0	Murbád Táluka.
2	West Thána	141	348	Máhim (121 square miles 438 acres); Dáhánu (19 square miles 550 acres).
3	Surat	0	229	
4	Panch Mahál	137	0	Dohad (73 square miles), Jhálod (42 square miles), and 22 square miles in Kálol.

33. Considerable advancement has been made and a large amount has been expended on the acquisition of occupied lands coming within the sanctioned forest boundaries by payment of money compensation, as will be seen from the following table :—

No.	Division.	Area acquired.		Price paid.			Rate per acre.			Remarks.
		A.	g.	Rs.	a.	p.	Rs.	a.	p.	
1	East Thána	0	36½	48	12	0	54	0	0	Rs. 48-12-0 paid for 36½ gunthas in the village of Murhé in Bhiwndi, Rs. 28,056-4-3 paid for 4,314 acres 13½ gunthas of land on the Tánsa Lake catchment area.
		4,314	13½	28,056	4	3	6	8	0	
2	Panch Mahals	101	0	435	6	0	4	5	0	
	Total ...	4,416	10	28,540	6	3	.....			

With the exception of 101 acres and 36½ gunthas all the land on the Tánsa catchment area has been purchased during the year, and the special officer who was appointed for this purpose under Government Resolution No. 3120, dated 31st March 1892, was relieved of his duties on the 1st April 1893. At first sight, it would appear that the former occupants of this land have been very liberally treated, having received Rs. 6-8-2 per acre. But, in addition to buying the occupancy of proprietary rights over the land, compensation for trees and for removing their houses had to be given in some cases. The following details will show how the amount of Rs. 28,056 4-3 was distributed :—

	Rs.	a.	p.
(*a*) Purchase of 4,314 acres and 13½ gunthas assessed at Rs. 1,129-2-6	23,802	10	5
(*b*) Purchase of 374 trees	663	8	0
(*c*) Compensation for removing 159 houses ...	2,655	8	0
(*d*) Extra payment at 15 per cent.	934	9	10
Total.	28,056	4	3

34. The following statement shows the cost of Forest Settlement Officers and their establishments for the several divisions:—

Division.	Forest Settlement Officers.						Office Establishments.						Contingencies.			Total.		
	Pay.			Travelling allowance.			Pay.			Travelling allowance.								
	Rs.	a.	p.	Rs.	a.	p.	Rs	a.	p.	Rs.	a.	p.	Rs.	a	p.	Rs.	a.	p.
East Thána	1,919	10	9	450	0	0	83	11	2	26	0	8	881	11	2	3,361	1	9
West Thána	6,985	10	0	2,127	3	3	2,841	6	4	901	12	10	380	15	0	13,236	15	5
Surat	.....			.....			*3,667	8	3	.....			.....			3,667	8	3
Panch Mahals ...	.....			.....			.....			.....			71	6	6	71	6	6
Total ...	8,905	4	9	2,577	3	3	6,592	9	9	927	13	6	1,334	0	8	20,336	15	11

*On account of pay and other charges of the office and district establishments of the Dángs Demarcation Officer.

35. The expenditure incurred upon the formation and constitution of reserved and protected forests during the year has amounted to Rs. 54,404-10-6 :—

	Rs.	a.	p.
(1) Salaries and travelling allowances of Forest Settlement Officers not charged to forests ...	11,482	8	0
(2) Salaries and travelling allowances of establishments employed under Forest Settlement Officers and charged in the forest accounts, and the contingent expenditure of the latter	8,854	7	11
(3) Demarcation of forest boundaries upon the ground by the construction of special forest boundary marks...	5,527	4	4
(4) Compensation for land and rights	28,540	6	3
Total....	54,404	10	6

36. The work actually effected during the year, and represented by the expenditure detailed above, comprises—

(*a*) The settlement of 364 square miles at a cost of Rs. 55-14-0 per square mile;

(*b*) The demarcation of 625½ miles of forest boundary at Rs. 8-13-5 per mile, and

(*c*) The purchase of 4,416¼ acres of land for forest reservation at Rs. 6-7-4 per acre.

(iii). DEMARCATION.

37. Prior to the introduction of the fourth edition of the Forest Department Code, demarcation and settlement operations used to be commented on in the administration reports under one heading; but as such operations are now required to be recorded separately, it will be sufficient to mention here, in order to avoid repetition, that demarcation was carried on simultaneously with settlement in the lands referred to in paragraphs 31 and 32.

38. From the following statement it will be noticed that the undemarcated area in this Circle is comparatively small, and, as Government has been pleased to appoint an Assistant Demarcation Officer in Thána, there is every reason to believe that the work will be pushed forward and completed by the close of the year 1893-94 :—

No.	Division.	Area demarcated.	Area undemarcated.	Total Forest area of the Division.
		Sq. m. a.	Sq. m. a.	Sq. m. a.
1	East Thána	207 330	379 360	587 50
2	West Thána	427 538	251 487	679 385
3	Surat	68 382	.....	68 382
4	Dángs	678 320	.....	678 320
5	Panch Máháls	333 455	.....	333 455
		1,716 105	631 207	2,347 312

39. In the demarcation of forest reservations in the Dángs nothing remains to be done. The cairns erected by the Forest Demarcation Officer, 1,196 in number, were formally taken over by the Forest Department, but this was done conditionally, as it was found that some corrections will have to be made hereafter on account of the surveyors or villagers having (wilfully or not it is difficult to prove) tampered with the positions of some of the cairns. It is not easy to discover such mistakes, if mistakes they are, in a rough country; but, on their being found out, steps will be taken to set them right.

40. The Dáng reserves are now demarcated by 1,196 well-built stone cairns, having cost Rs. 3,524, or Rs. 3 each. Considering the difficulty of procuring labour in this unhealthy and secluded locality the expenditure is very reasonable.

41. In the Mándvi Range of the Surat Division it has transpired, during the year of this report, that owing to the absence of accurate maps at the time of the original demarcation, errors have been made in the emplacement of the cairns. The mistakes already discovered at the time of boundary-line clearances being so numerous that it is under contemplation to move Government to appoint a special officer for revising the old demarcation sanctioned in Government Resolution No. 6445, dated 31st August 1889.

42. In addition to the demarcation performed by the Forest Settlement Officers at the time of enquiring into claims, &c., and settling the forests, which demarcation is necessarily of a somewhat rough and partial character, the work of erecting special forest boundary marks and clearing boundary lines according to the standing orders on the subject was undertaken in all divisions. The amount of work done, together with its cost, is exhibited in the following statement :—

No.	Division.	Length of boundary lines cleared.	Number of Cairns erected.		Stones.	Amount spent.
			Large.	Small.		
						Rs. a. p.
1	East Thána	...	289	613	333	346 3 0
2	West Thána	...	1,134	...	...	525 10 0
3	Surat	67½	1,412	...	...	4,249 5 4
4	Panch Maháls	113½	66	1,085	...	406 2 0
	Total ...	181	2,901	1,698	333	5,527 4 4

(iv). SURVEYS.

43. The [illegible] work completed by a portion of No. 17 Survey Party of the Government of India working under Colonel Hutchinson in the Thána District during the year will be gathered from the following summary :—

	Square Miles.
Area triangulated	165
Area traversed	10
Area of detailed survey	60

44. The season's triangulation and traverse work was confined to the Váda Táluka and the detail survey to Bassein, Bhiwndi and Sálsette. All these operations were entrusted to the care of Mr. C. F. Norman; and, considering that they were carried out in three months from March to May in a hilly country covered with mixed teak and evergreen forests, the outturn of field work shown above is very satisfactory.

45. The progress made in the completion of the maps during the recess season is exhibited in the following table :—

Forest Division.	Táluka.	Scale.	Number of field sections.	Final Maps.
East Thána	Bhiwndi ...	8″	1	1
West Thána	Bassein ..	8″	14	10
West Thána	Sálsette ...	8″	13	7

46. The nature, extent and cost of survey operations during the two seasons ending 30th September 1892, and 1893 respectively, are given below for sake of comparison ;—

1891-92.

District.	Táluka.	Triangulation.			Traverse.			Topographical 8".			Total.
		Area.	Cost.	Cost Rate.	Area.	Cost.	Cost Rate.	Area.	Cost.	Cost Rate.	
					A.	Rs. a. p.	Rs. a. p.	A. g.	Rs. a. p.	Rs. a. p.	Rs. a. p.
North Thána ..	Váda	..	..	..	(a)13	483 4 3	37 2 9	(b) 52 27	8,445 1 10		8,928 6 1
	Bassein .	..	..	..	..	..	..	..	....	161 9 1	
South Thána ..	Bhiwndi ..	..	..	..	..	..	..	31 2	5,011 11 9		5,011 11 9
	Total ..	..	..	..	13	483 4 3	37 2 9	83 29	13,456 13 7	....	13,940 1 10
Cost per square mile ..		..	..	..	..	37 2 9	..	..	161 9 1	....	....

(a) 57 linear miles in Váda in advance.
(b) Bassein.

1892-93.

District.	Táluka.	Triangulation.			Traverse.			Topographical 8".			Total.
		Area.	Cost.	Cost Rate.	Area.	Cost.	Cost Rate.	Area.	Cost.	Cost Rate.	
		A	Rs. a. p.	Rs. a. p.	A	Rs. a. p.	Rs. a. p.	A. g.	Rs. a. p.	Rs. a. p.	Rs. a. p.
North Thána .	Váda .	165	2,559 7 8	15 8 0	10	154 15 8	15 8 0	..	....	....	2,714 7 0
	Bassein ..	..	....	..	..	..	..	45 0	7,060 0 5	156 14 2	7,060 0 5
	Salsette .	..	....	..	..	..	..	11 20	2,339 7 6	155 14 11	2,339 7 6
South Thána .	Bhiwndi ..	..	....	..	..	..	..	3 80			
	Total ...	165	2,559 7 8	15 8 0	10	154 15 8	15 8 0	60 0	9,399 7 11	156 6 6	12,113 15 3
Cost per square mile ..		..	15 8 0	..	..	15 8 0	..	..	156 6 6	....	....

47. The mileage rates vary very little in the different localities in which the Survey Party was at work, as the features of the country are identical and the cost of the different operations appears to be slightly in favour of the year under report.

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

I.—REGULATION AND MANAGEMENT.

(*a*). Working Plans and their control.

48. The Working Plans Division was transferred from the old to the new Northern Circle on the formation of the latter, and was in charge of Mr. T. B. Fry, Deputy Conservator of Forests, throughout the year. No change was made in the system originally adopted, and the operations of the Working Plans Officer were confined to Thána District.

49. The system in force continues to meet with the favour of officials concerned in the welfare of the forests and of the agricultural interests in the district. There can be no doubt that it best meets the wants of the agricultural classes whilst providing for the maintenance of the forests, and if not altogether a scientific method of treatment it at least paves the way for a better system which may be introduced in the future.

50. In accordance with the orders issued in Government Resolution No. 7107, dated 6th September 1892, every effort was made to exploit all the coupes of the year. The majority of them were eagerly bought up by contractors; but of the number which did not find purchasers some were felled departmentally, while others were left standing.

51. The working plan of the forests comprised in the Bassein Range was reduced to paper, but being subjected to criticisms it was under consideration at the close of the year.

52. The following is the progress statement of work performed by the Working Plans Officer and his establishment during 1892-93:—

No.	Range.	Total Forest Area.	Number of Blocks per Range.	Number of Compartments actually laid out in 1892-93.	Average Area of Compartments actually laid out.	Remarks.
	East Thána.					
1	Kalyán	32,178	16	15	44	Average normal area of compartment is 65 acres.
2	Murbád	71,712	20	20	49	
3	Bhiwndi	46,099	20	20	49	
4	Mokháda	40,190	16	25	62	
5	Khardi	149,366	52	52	61	
6	Sháhápur					
	Total ...	339,545	124	132	53	
	Total during 1891-92.	339,545	124	142	50	
	West Thána.					
1	Sálsette	14,441	10	10	39	Average normal area of compartment is 51 acres.
2	Bassein	51,230	23	24	51	
3	Máhim	76,033	35	43	48	
4	Dáhánu	107,351	45	56	59	
5	Umbargaon	23,008	12	12	46	
6	Váda	77,031	33	40	55	
	Total ...	349,094	158	185	50	
	Total during 1891-92.	358,441	164	199	52	

53. The expenditure on these operations is exhibited below, from which it will be seen that the cost per acre of laying out the compartments of the year under report is very slightly in excess of that of the preceding year :—

No.	Range.	Number of Compartments.	Defined by		Aggregate Area of Compartments.	Cost.	Average Cost per Compartment.	Average Cost per Acre.	Remarks.
			Cairns.	Stones.					
	East Thána.				A. g.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
1	Kalyán	15	35	933	656 10	57 4 0	3 13 1	0 1 7	
2	Bhiwndi	20	12	1,655	993 0	67 12 0	3 6 2	0 1 1	
3	Murbád	20	66	1,611	982 20	84 14 0	4 6 4	0 1 5	
4	Sháhápur	52	161	4,609	3,154 0	232 6 0	4 6 10	0 1 2	
5	Khardi								
6	Mokháda	25	94	2,427	1,556 30	117 1 6	4 10 10	0 1 2	12 additional coupes marked.
	Total ..	132	308	11,235	7,342 20	559 5 6	4 2 3	0 1 3	
	West Thána.								
1	Umbargaon	12	88	1,024	549 0	58 8 6	4 14 0	0 1 8	
2	Dáhánu	56	234	4,973	3,809 0	291 13 6	5 3 4	0 1 1	
3	Máhim	43	122	3,124	2,074 0	162 0 9	3 12 3	0 1 3	
4	Bassein	24	2	1,872	1,171 10	89 12 0	3 11 2	0 1 2	One additional coupe marked.
5	Váda	40	154	3,621	2,187 0	201 10 9	4 12 8	0 1 4	Seven do.
6	Sálsette	10	23	690	394 0	40 5 0	4 8 0	0 1 7	
	Total ..	185	623	15,304	9,634 10	844 2 6	4 7 7	0 1 4	
	Grand Total ..	317	991	26,539	17,026 30	1,403 8 0	4 6 10	0 1 4	
	Total during 1891-92.	341	1,121	29,918	17,556 0	1,468 2 4	4 3 2	0 1 4	

(*b*). Annual Plans-of-Operations.

54. Under the orders issued in Government Resolution No. 7107, dated 6th September 1892, the annual plan of operations is now submitted by Divisional Forest Officers through their respective Collectors, in order that the latter may consider any proposed closure of forest areas against grazing or other privileges, and may see that due provision is made for local wants, and also that he may make known to the people where supplies of wood, grass, and ráb may be obtained, and the localities in which grazing is prohibited or allowed.

55. The operations projected in the annual plan at the beginning of the year were, on the whole, satisfactorily carried out. The deviations worth recording will be noted in the next chapter.

II.—WORKING OF THE YEAR.

(*a*). Communications and Buildings.

56. As a rule, the construction of roads is not undertaken departmentally, as in all the accessible forests the contractors during the exploitation of coupes purchased by them do a considerable amount of rough road-making, which is sometimes afterwards serviceable for country cart traffic.

•57. In the forests of the Dángs the case is different, and a system of well-considered roads is being laid out as funds are available.

58. The building works undertaken by the Forest Department consist in the erection of forest guards' houses built, in the usual style of village huts, of teakwood and wattle with thatched roofs; such guards' huts now exist all over the Northern Circle.

59. At the instigation of the Collector a number of new cattle-pounds has been erected in the two Thánā divisions to aid in the work of enforcing protection of closed coupes. The selection in the villages in which the pounds should be built, was made by the Divisional Forest Officers after consulting the local Revenue officers, good central situations being chosen. These pounds consist of a wire-fenced enclosure of about 1,200 feet with a teakwood gate at one side; in the middle of this enclosure a thatched or tiled shed is built as a protection to cattle against heat or wet.

60. The amount spent on works under this head was Rs. 649, on roads and bridges Rs. 535, buildings Rs. 1,660, and other works Rs. 110. The details of this expenditure are shown below:—

Description of Work.	East Thána.		West Thána.		Surat.		Panch Mahálś.		Total.	Remarks
	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.		
		Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.	Rs. a. p.	
1. Bungalows—										
New work... ...	..	.....	...	.....	2	1,244 3 6	...	.....	1,244 3 6	
Repairs	1	145 4 6	2	42 0 0	5	135 4 7	1	41 11 0	364 4 1	
2. Roads—										
New work... ...	*3½ miles	11 2 0	...	.....	8 miles.	524 9 10	...	.....	535 11 10	*For extraction of material in coupes worked departmentally.
Repairs	...	.....	...	.....	91 miles.	367 10 9	...	.....	367 10 9	
3. Depôt houses—										
New work... ...	4	294 13 0	...	.....	...	.....	...	.....	294 13 0	
Repairs	...	.....	1	8 0 0	...	.....	...	.....	8 0 0	
4. Guards' huts and forest posts—										
New work... ...	3	30 0 0	2	20 0 0	4	51 8 4	2	20 0 0	121 8 4	
Repairs	116	448 4 0	135	371 0 0	8	20 2 0	8	50 13 0	890 3 0	
5. Cattle-pounds—										
New work... ...	16	290 9 6	11	359 0 0	...	.....	...	.....	649 9 6	
Repairs	...	.....	...	.....	...	.....	...	.....	.....	
6. Other works—										
New work... ...	...	.....	...	.....	2	110 0 0	...	.....	110 0 0	
Repairs	...	.....	...	.....	...	.....	...	.....	.....	
Total ...	...	1,220 1 0	...	800 0 0	...	2,453 7 0	...	112 8 0	4,586 0 0	

61. The following is a list of works carried out during the year through the agency of the Public Works Department:—

	Name of Work.	Amount of expenditure.
		Rs. a. p.
1.	Forest Depôt House at Sáwtá	1,082 11 2
2.	Do. do. A'tgáon ...	1,066 4 4
3.	Do. do. Wángni ...	1,190 1 0
4.	Do. do. Kasárá ...	1,075 13 4
5.	Do. do. Wásind ...	1,172 9 5
6.	Do. do. Pálghar ...	1,181 5 1
	Total ...	6,768 12 4

(*b*). Protection of Forests from Injury.

(1). General Protection and Breaches of Forest Law.

(a). General Protection.

62. The forest protective staff, during the year, received no addition to its strength, although the want of a larger establishment is greatly felt. A scheme for the reorganization of the subordinate staff is before Government, and orders thereon are awaited.

63. It is necessary to record that although the number of forest guards is now the same as it was when last strengthened seven years ago, the work expected of them has increased enormously owing to the more extended working of the forests in all the divisions of this Circle.

64. It is now practically impossible for a beat guard to exercise proper supervision on the operations of the contractors and permit-holders as well as to protect the rest of his charge; and though the protection of the forest has not deteriorated, there is not that improvement visible of late years which one has a right to expect with the march of civilization and settlement of the forests.

65. Although systematic *loot* of the forests on anything approaching an extensive scale is of rare occurrence, petty thefts continue to be committed. The latter are, however, confined to material required for personal use, for barter, or for the use of some other party, and who is generally himself able to evade the hand of the law.

66. The dead-wood privileges are also fruitful sources of injury to the forests, as the temptation to manufacture dead-wood by hacking down trees in advance or by firing the forests is very great. With regard to this the Collector of Thána writes :—

"The special-system of dead-wood collection near Thána is a cause of mischief, and I would be glad to see it abolished. The similar (though not identical) system in Bhiwndi (in the Eastern Division) is even more injurious, and there is really no reason for maintaining either."

67. A few bad cases of thefts of standards in the coupes under exploitation were discovered, but as it was found impossible to prove the actual complicity of the contractors concerned, they were severely dealt with under the penal clauses of the coupe agreements.

68. The work of the protective staff is far from being satisfactory, but large allowance has to be made on account of the size of their charges and the multifarious duties the men are now called upon to perform. In the interests of efficient protection of the forests there is no doubt that the number of forest guards will have to be at least doubled in such divisions of this Circle in the near future. The following remarks of the Collector of Thána in this connection are worth quoting :—

"It is very evident that, at the time that the present system of felling by strict and regular rotation was introduced, no officer concerned was in a position to know how large an establishment is required to work such a system properly, or how often the attempt has had to be given up by private owners of wood land in other countries."

(b). Breaches of Forest Law.

69. In judging of the extent of the breaches of forest law which are now to be recorded, it must be remembered that this report deals with a period of 15 months instead of 12 only. There has been a notable decrease in the number of cases sent to trial during the year, the figures being 291 in place of 364. Too much importance must not, however, be attached to this decrease; for, though there is no evidence that supervision of the forests has been less effective than usual, or that more leniency has been displayed than formerly by Divisional Forest Officers in the treatment of offences discovered, yet it is improbable that such a considerable advance in law-abiding behaviour should have been made by the people at large in the year. Unfortunately the larger number of undetected offences—782 as against 587—conclusively proves the truth of the above remarks.

70. Similarly it will be found that the number of cases compounded by Divisional Forest Officers under Section 67 of the Indian Forest Act has decreased. In 1891-92 the number for 12 months was 502, whilst in 1892-93 the number for 15 months comes to 419 only.

71. A comparative statement of the number of cases tried before Magistrates for breaches of the forest law during the year under report and the year preceding, with the results of the trials, is given below :—

No.	Division.	1891-92.		1892-93.		Percentage of failures.	
		Prosecutions.	Acquittals.	Prosecutions.	Acquittals.	1891-92.	1892-93.
1	East Thána ...	113	30	110	43	·26·5	39·
2	West Thána ...	158	18	108	17	11·3	15·7
3	Surat ...	3	1	3	...	33·3	...
4	Panch Mahals .	62	5	13	2	8·0	15·4
	Total ...	336	54	234	62	16·03	26·5

72. In addition to the 263 new cases taken into Court there were 28 cases brought over from the preceding year. Of the total number, 234 were disposed of by the 30th June 1893, with the result that there were 172 convictions and 62 acquittals. The percentage of failures in the different divisions save Surat is higher than in the year before; but, though there is a rise of 10·47 in the percentage of acquittals for the Circle, still the average—26·5—cannot be regarded as a bad one when the difficulties of forest protection are taken into account, 57 cases were awaiting disposal at the close of the year.

73. No explanation, as regards East Thána, for the very high percentage of acquittals is traceable from the Divisional Report, but the Collector in his remarks accompanying that report accounts for it as follows :—

"I review nearly all forest convictions myself, and I think the falling off in percentage of convictions to be rather due to greater care on the part of the Magistrates (formerly very lax in the matter of evidence in forest cases) and to the personal equation of one or two Magistrates than to any difference in the departmental methods of prosecutions."

74. In the statement following, comparison is made between the numbers of cases in which prosecutions were instituted for the two years 1891-92 and 1892-93 classified under the four different heads of crime as prescribed by the Forest Department Code :—

No.	Division.	Injury to forest by fire.		Unauthorised felling or appropriation of wood and minor forest produce.		Grazing without permission or in tracts in which grazing is prohibited.		Other offences.		Total.	
		1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
1	East Thána ...	6	7	98	125	3	2	16	2	123	136
2	West Thána...	2	2	74	97	4	5	78	8	158	112
3	Surat	...	...	3	2	...	...	...	1	3	3
4	Panch Mahals.	...	...	62	11	...	1	2	...	64	12
	Total ...	8	9	237	235	7	8	96	11	348	263

75. The following table exhibits the nature and character of the offences tried by Magistrates during the year of this report :—

No.	Division.	Offences relating to the misappropriation of				Total.
		(a) Timber.	(b) Firewood.	(c) Minor Forest Produce.	(d) Other Offences.	
1	East Thána	84	32	7	13	136
2	West Thána	51	31	12	18	112
3	Surat	1	...	1	1	3
4	Panch Mahals	10	1	1	...	12
...	Total ...	146	64	21	32	263

76. The classification of undetected cases is given below :—

No.	Division.	Injury to Forest by fire.		Unauthorised felling or appropriation of wood and minor forest produce.		Grazing without permission or in tracts in which grazing is prohibited.		Other Offences.		Total.	
		1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
1	East Thána	...	152	295	270	..	...	...	...	295	422
2	West Thána	...	177	224	128	...	...	...	29	224	334
3	Surat...	...	...	...	...	...	...	...	...	...	...
4	Panch Mahals	...	...	68	26	...	...	...	...	68	26
	Total ...	...	329	587	424	...	...	...	29	587	782

77. The following statement will show the number of cases decided in accordance with Government Resolution No. 7844, dated 3rd October 1884, in the Revenue Department, by Revenue officers under Section 43 of the Land Revenue Code, in the Thána District, as compared with that of the previous year :—

No.	Division.	1891-92.					1892-93.				
		Number of cases.	Value of Forest Produce.	Acquittals.	Convictions.	Amount of fines.	Number of cases.	Value of Forest Produce.	Acquittals.	Convictions.	Amount of fines.
			Rs. a. p.			Rs. a. p.		Rs. a. p.			Rs. a. p.
1	East Thána ...	1	1 8 0	...	1	1 8 0	12	49 7 0	...	12	50 1 0
2	West Thána ...	5	8 5 3	...	5	6 7 9	4	159 15 6	...	4	159 15 6
	Total ...	6	9 13 3	...	6	7 15 9	16	209 6 6	...	16	210 0 6

78. A comparative statement, showing the number of cases compromised under Section 67 of the Indian Forest Act and taken into Court, is given below :—

No.	Division.	Taken into Court.		Compounded under Section 67 of the Forest Act.		Total number of cases.	
		1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
1	East Thána...	130	153	254	173	367	326
2	West Thána	167	121	96	122	254	243
3	Surat	3	3	17	17	20	20
4	Panch Mahals	64	14	135	107	197	121
	Total ...	364	291	502	419	866	710

79. The classification of the cases compounded during the year is given below as desired in Government Resolution No. 7232, dated 12th September 1892 :

No.	Division.	Offences relating to the misappropriation of				Total.
		(a) Timber.	(b) Firewood.	(c) Minor Forest Produce.	(d) Other Offences.	
1	East Thána	90	40	17	26	173
2	West Thána	31	27	27	37	122
3	Surat	8	3	3	3	17
4	Panch Mahals	70	23	12	2	107
	Total ...	199	93	59	68	419

80. In the Northern Circle as at present constituted, it appears it has been the custom to release offenders with a warning or without exaction of damages or other punishment when the offence committed was unintentional or otherwise to some extent venial. The triviality of a forest offence cannot be gauged by money valuation, as however trivial in its character it stands to reason that if often repeated, or if committed independently, it becomes grave, and, therefore, it is often necessary to take cognizance of offences which at first sight appear of no significance.

81. Since the promulgation of the orders contained in Government Resolution No. 8626, dated 3rd November 1892, the Collectors have had an opportunity of reviewing the monthly abstracts of cases compounded under Section 67 of the Indian Forest Act submitted to them, and they have not had any occasion to find fault with the Divisional Forest Officers' procedure.

82. The number of offences which were treated as trivial, and the offenders in which were merely warned after their offence had been reported on and considered, was 72. Unfortunately it is impossible to compare this number with that of the previous year's, as figures for the latter are not available.

83. The statement below gives the required details in respect of money paid during the year 1892-93 as compensation for forest offences claimed under Section 67 of the Indian Forest Act :—

No.	Division.	Number of cases compounded and in which compensation has been accepted.	Amount of compensation.	Remarks.
			Rs. a. p.	
1	East Thána ...	173	324 7 7	
2	West Thána ...	122	478 12 9	Rs. 12-8 were not recovered at the end of the year.
3	Surat	17	69 1 4	Rs. 5-14-8 do. do.
4	Panch Mahals ...	107	152 13 5	
	Total ...	419	1,025 3 1	

84. The 419 cases of compounded offences classified according to the payment agreed upon were as follows :—

No.	Division.	Number of cases in which compensation was fixed at Rupees																										Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30 to 49	50	
1	East Thana	119	22	10	7	2	3	2	2	...	2	...	...	1	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	173
2	West Thána	54	31	10	7	5	...	1	...	1	1	2	2	...	1	1	...	...	1	...	...	...	1	...	...	...	...	...	...	1	...	3	122
3	Surat	9	1	1	...	2	...	1	1	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17
4	Panch Mahals	75	15	4	2	...	...	6	...	...	...	...	...	...	2	...	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	107
	Total ...	257	69	25	16	9	3	10	3	1	3	2	2	1	4	2	1	...	2	...	2	1	1	1	...	...	...	...	...	1	...	3	419

85. The information given in the following statement is in accordance with paragraph 11 of Government Resolution No. 1899 of the 15th March 1891 :—

No.	Division.	Number of complaints disposed of under Section 67.	Number of cases in which compensation has been accepted.	Number of appeals against the proceedings.	Manner in which appeals have been disposed of.	Remarks.
1	East Thána ...	187	173	...	...	In 14 cases offenders were let off with a warning.
2	West Thána ..	150	122	...	...	„ 28 do. do.
3	Surat	25	17	...	...	„ 8 do. do.
4	Panch Mahála ...	129	107	...	...	„ 22 do. do.
	Total ...	491	419	...	...	72

(*b*) (2) *Protection from Fire.*

86. The results of the year's fire protection as compared with those of the year 1891-92 are shown below :—

No.	Division.	Forest area placed under protection against fire.		Acreage burned.		Percentage burned.		Remarks.
		1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	
1	East Thána ...	377,780	451,956	10,420	18,515	2·7	4·09	For the purpose of this statement, Váda Táluka is included in East Thána.
2	West Thána ...	436,398	358,719	8,613	5,462	1·9	1·5	
3	Surat	477,913	478,141	432,583	434,990	90·5	90·9	
4	Panch Mahála ...	200,109	213,575	10,133	3,944	5·06	1·8	
	Total ...	1,492,200	1,502,391	460,630	462,911	30·8	30·7	

87. The past season was an exceptionally favourable one for the prevention of forest fires. Late rains kept the grass green till well into the cold weather and few fires were reported before the first week in January, the hot weather was also milder than usual, rain fell in May—which all tended to shorten the period of the fair season.

88. On the recommendation of the Commissioner, N. D., Government sanctioned in their Resolution No. 757, dated 27th January 1893, the adoption, in all the other divisions of this Circle, of the practice introduced in the Thána District two years ago of reporting at once each forest fire to the Collector on a post card by the nearest literate forest subordinate. The action taken by the Revenue head of the district on receipt of those reports has produced a very good effect on the officers under him, *viz.*, that they now understand that they are expected to give every assistance in extinguishing fires and help the forest protective staff in tracing their causes,—matters which were only dimly recognised before. This system has now taken a firm root in Thána and may be said to have passed the experimental stage. In villages where before forest guards had difficulty in inducing people to turn out to aid in suppressing fires, the latter turn out of their own accord in the absence even of a forest subordinate directly they find that a fire has burst out in their forest.

89. In the Panch Mahála and Surat divisions, in which the system described above has only been recently introduced, the good results noticed in Thána were not apparent, but when it has had time to develope itself, there is no

doubt that Revenue subordinates and villagers will co-operate with the forest staff in exactly the same manner.

90. It is satisfactory to note that greater activity was displayed in all divisions for carrying out fire-protection measures, and if the figures of the previous year had been as correct as those of that under report, considerable improvement would have been noticeable at first sight.

91. *East Thána.*—Out of the 159 fires reported, 65 occurred in the Tánsa basin forests and which are responsible for two-thirds of the area burnt in this division. Mr. Sinclair, the Collector, remarks in his review of the divisional report that

"Last report's figures were particularly unreliable in this division, as it could not be made out, after Mr. Osmaston's departure on sick leave, what months were included in his fire year. My own suspicion is that they were only the months of November and December 1891 and January, February and March 1892. The diaries showed ample reason for supposing the areas to be much underestimated in the fire reports, which are now rather more accurate. The figures of the present report will form a point of departure for the future."

92. There is no doubt, however, that as long as the protective staff remains at its present strength, it can hardly be hoped that the fires in the forests on the Tánsa Lake catchment area can be checked to an appreciable extent. The villages having been depopulated, and the distance to be traversed to get round the lake from one point to another being great, it is exceedingly difficult to procure assistance to extinguish fires. When the reorganization of the subordinate pretective establishments is sanctioned, it will be imperative to at least double the number of forest guards in this neighbourhood to protect these forests efficiently from fire.

93. *West Thána.*—Exclusive of the Váda Range, which now forms part of the East Thána Division, there were 155 fires of the year running over 5,462 acres against 163 burning 7,400 in 1891-92. The prominent feature in the fire conservancy of this division was the excellent fire discipline maintained by the Divisional Forest Officer whereby a large number of the fires reported during the year were speedily extinguished before they had time to get out of hand. These satisfactory results reflect great credit on Mr. Millett, the Divisional Forest Officer, and on Mr. Rebeiro, Extra Assistant Conservator of Forests, and Range Forest Officer Hassanalli Mahomedally. The last-named officer bears the palm for fire protection. In his Range (Dáhánu) not only is the area burnt considerably less than in the previous year, but the origin of 7 out of the 28 fires of the year was traced, and the offenders punished.

94. *Surat.*—The fires in the leased forests of the Dángs have proved no less disastrous than in previous years. By the beginning of April they had swept over the whole area, not once but twice and three times. So long as the policy of not interfering with the privileges of hunting, collecting mhowra flowers, smoking rats in their holes enjoyed by the Bhils and other wild tribes unrestrictedly is allowed to continue, fire-protective measures will be of no avail in these valuable forests. Considerable laxity seems to have prevailed in reporting forest fires in the Mándvi Range during the last two years, and the figures as regards the area burnt over in the past cannot be relied on. In the beginning of the year, if it had not been pointed out to the Divisional Forest Officer that the fire reports were most of them grossly inaccurate, several fires would not have been reported at all, or not till long after the event. Mr. Wallinger, however, took great pains and has carefully gone over the range, so that the area burnt during the year in Mándvi may be taken as pretty accurate. The principal difficulties to be met with are, that the eastern portion of this range, a block of 12,900 acres, in which most of the fires occurred, is unpopulated and conterminous with the Gáekwár's territory. Great vigilance was, however, exercised for preventing the fires from sweeping down from the latter, and no single fire of the year proved disastrous. It is also satisfactory to record that whereas the origin of not a single fire was traced ever before in this division, during the year under report, in five cases the person by whose action the forest was fired was detected and punished.

95. *Panch Mahâls.*—There is a marked improvement in this division, as the area traversed by fire is considerably less than in the previous year, the figures being 3,944 acres as against 10,133 in the year 1891-92. The Divisional Forest Officer, however, reports that several of the fires of the year "have the character of being exceptionally large." This will be remedied when the object for which the reporting of forest fires to the Collector directly on their occurrence is better understood by the Revenue subordinates and the people at large.

96. The expenditure incurred, during the year of this report, on burning fire lines, rewards to villagers on rendering prompt assistance in putting out fires, &c., is compared with that of the preceding year in the following statement:—

No.	Division.	Expenditure.		Remarks.
		1891-92.	1892-93.	
1	East Thâna	701	1,576	
2	West Thâna	2,364	2,029	
3	Surat	43	186	
4	Panch Mahâls	2	...	
	Total ...	3,110	3,791	

(*b*) (*3*). *Regulation of Grazing and Protection from Cattle.*

97. The revised rules for the regulation of grazing published under Government Resolution No. 3595, dated 23rd May 1890, are at present applied to the Bassein, Kalyán and Bhiwndi ranges in the Thâna District and to all the forest areas in Surat except the Dângs. The introduction of these rules in the Panch Mahâls Division was under contemplation, and it is hoped that they will soon be generally applied. On the working of the rules wherever they have been introduced, no complaint has been received during the year; but there is reason to fear that very many cattle enjoyed free grazing for which fees really ought to have been paid. This fault will gradually disappear and will give no trouble in the future, as there is a tendency not to put too liberal an interpretation on the rules.

98. In the two Thâna divisions only 104 out of 1,264 square miles are at present closed to grazing, but as the coupes of each year up to a limit of ten years are exploited, the proportion will increase.

99. The extent of closures in Surat is limited to only 28 square miles out of a total of 746¼. But exclusive of the Dângs the percentage of closed area is higher than anywhere else in this Circle, being 41. It is important to remember, however, that only in this division a close season from 16th March to 31st August for grazing has been observed for the last two years, and the people are commencing to learn to make provision of fodder to feed their cattle on during the time grazing is forbidden in the forests.

100. A third of the area under the management of the Forest Department is closed to grazing in the Panch Mahâls, but owing to the inefficiency of the protective staff the closures are not respected, and a great deal of illicit grazing is prevalent in this district than anywhere else in the Northern Circle.

101. The number of animals impounded during 1891-92 and 1892-93 for trespassing in open and closed forests is compared in the following table:—

No.	Division.	From open Forests.		From closed Forests.		Total.	
		1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
1	East Thâna	18	421	680	1,260	698	1,681
2	West Thâna	286	67	1,553	1,598	1,839	1,665
3	Surat	23	314	379	927	402	1,241
4	Panch Mahâls... ...	1,595	1,464	122	226	1,717	1,690
	Total ...	1,922	2,266	2,734	4,011	4,656	6,277

102. Notwithstanding the above return is for 15 months, and not for 12, the impoundings have been heavier in the East Thána and Surat divisions than in the previous year. The reason for the increase in the former is probably the larger number of cattle-pounds erected for facilitating the impounding of cattle, which in former years could only be driven out of the forests, because the distance of the nearest pound from the scene of offence was too far to make it practicable to drive the cattle there.

103. A considerable number of the animals impounded in Surat were for evading payments of the prescribed fees. This step was only taken after repeated warnings had been given to the owners. On this subject while commenting on the Divisional Report the Collector of Surat remarks as follows :—

"The number of cattle impounded has gone up from 204 to 1,241, but it is submitted that the latter number is by no means excessive for 68 square miles of forest during a whole year. The grazing fees in Mándvi though very equitable are naturally not popular, and it is quite impossible to introduce them effectively among a people as unused to restrictions as Gypsies without some slight punitive measures; the method of impounding is the most lenient way possible of teaching them that those who graze must pay."

104. The number of cattle actually impounded during the year in the several divisions of this Circle, however, by no means represents the number of cattle that are found grazing where they have no right to graze. In the first place, many are sure to escape when a large number are caught, as it is impossible for one or two guards to drive all of them. In the second place, owners often attempt to rescue the animals on their way to the pound when they find it can be done successfully and the law cannot be always brought to bear upon them. To lax supervision also, it must be admitted, on the part of guards much illicit grazing prevails in closures.

105. The sites of the pounds erected during the year by the Forest Department in the two Thána divisions under the orders of the Collector have been carefully selected with regard to the positions of the forests and of formerly existing pounds. The object aimed at is to have a pound within a reasonable distance of the forests in which cattle trespass is to be apprehended.

Fencing.

106. In the East Thána Division no new fences were erected, attention having been paid only to keep the old ones under repairs.

107. Operations on a larger scale than formerly were projected in the West Thana Division to fence in the lower boundaries of exploited coupes in which cattle trespass was to be apprehended, but unfortunately the supply of wire failed, and the work was left half finished.

108. In Surat the area worked out during the year in the Párner Reserve (9 acres) was fenced in with wire.

109. No kind of fencing was attempted in the Panch Mahals Division.

Civil Suits.

110. Two civil suits left over from the preceding year were disposed of during 1892-93. These were as follows :—

Gangádhar Vishwánáth Kondkar brought a suit against the Forest Department, claiming damages to the extent of Rs. 2,719 for alleged wrongful suspension of his contract for the Rajawli coupe in the West Thána Division. The suit was decided against Government, and a decree for the sum of Rs. 1,229-8-0 was passed in favour of the plaintiff for damages and costs.

111. The suit filed against the Izafatdárs of A'mgaon, táluka Vada, in 1890-91 to recover quit-rent and nazrána on account of timber and other forest produce cut and removed by them from the forest of the village, was determined in favour of Government, and the amount of cess to be paid was fixed.

112. Mr. V. D. P. Rebeiro, Extra Assistant Conservator of Forests, was sued in the Subordinate Judge's Court at Thána by one Shivaram Dipchand, one of the defendants in the criminal prosecutions instituted by Government against Dádu Sukar, contractor of the Shirgaon coupe, and others in 1891-92 claiming Rs. 1,055-5-6 as damages on account of alleged false complaint and his unlawful

detention in custody for some 19 days. The case was decided against the plaintiff, who had to pay costs of the suit.

Criminal Cases.

113. Criminal proceedings were instituted against one of the Depôt officers serving in the Dángs, Gulábchand Prágji, for having levied excess fees upon produce removed, and thereafter under fear of detection for having burnt some portion of his records. The Political Agent, Khándesh, before whom he was arraigned, sentenced him to one year's rigorous imprisonment.

(*c*). Improvement of Forest Growth.

(*1*). *Natural Reproduction.*

114. In the Thána forests natural reproduction was vigorous during the year and would be perfect if fires and cattle trespass could be wholly checked. The coppice in most of the exploited coupes grows fast, though the teak excels other species in this respect during the first years of its re-growth. The shoots also suffer to a certain extent, when they first commence to appear, from the browsing of wild animals such as Portax pictus, Tetroceros gudricornis and Cervalus arcus; the neighbourhood of a recently felled coupe being almost a certain find for one or other of these animals. In a good many of the compartments exploited in the earlier years of the Working Plan rotation, *i.e.* in 1887-88, a dense crop of promising mixed forests is now to be seen, and the progress made by each year of successful closure in dominating the grass, reeds and other noxious growth has secured the compartments from all possible danger from fires. So long as there is a sufficient area open to grazing for the wants of the people, it is not advisable to shorten the limit of closure of ten years fixed in the Working Plan, for the longer the young stock is left undisturbed the better it will grow.

115. The fires of the year having not proved disastrous, except in the forests on the Tánsa Lake catchment area, and the rainfall having been ample though late, a plentiful crop of seedlings, it is very natural to expect, should have established themselves, as it is invariably found that they do so when the above circumstances are present.

116. The plague of caterpillars noted by Mr. Shuttleworth as having probably interfered with the flowering and seeding of the teak, by eating all their leaves and checking the growth of trees, was fortunately absent during the year.

117. It is worthy of notice that the Inga dulcis, which was experimentally cultivated on the Thána-Panvel road, has now become firmly established and reproduces itself naturally. Several self-sown seedlings are now found in the vicinity of the parent trees on the borders of the adjoining forests.

118. In the Surat Division natural reproduction is somewhat retarded by fires, and as a whole is not very satisfactory. Bulsár and Chikhli ranges are, however, exceptions to the general rule, and are a splendid example of what Nature can do in this respect. The remarks of Mr. Lely, the Collector, on this subject are worth quoting :—

"Some of the forests in the south of the district though small are pictures. In Mándvi Táluka the soil is inferior, but the Department is there reclothing large tracts of land and vindicating itself as one of the most useful agencies of the country."

119. Natural reproduction in the Panch Mahál Division is to be found in small patches few and far between, but wherever it presents itself it is good. Owing to the state of the forests being generally far from fully stocked, it only asserts itself very slowly; and, until the people learn to respect the closures better than they do at present, prospects of clothing denuded areas solely by natural means are very remote.

(*2*). *Artificial Reproduction.*

120. Cultural operations in this Circle are, as a rule, confined to the exploited compartments and other closures in order to assist natural reproduction. Regular plantations properly so called, being very small in extent, appear to have

an educational rather than a fiscal value, and have not been made hitherto with a view of covering large denuded areas.

121. In the East Thána Division, in addition to the work of filling up blanks in closures by broad-casting and dibbling seed or pit planting, the lands acquired on the catchment area of the Tánsa Lake were again operated upon. It has been already remarked in paragraph 92 that fires devastated that area ; but from recent reports it appears that a large percentage of plants have shot up again, showing that they were deep rooted. Forest guards sowed 3,640 maunds of different kinds of seeds and transplanted a large number of seedlings procured from the surrounding forest over 871 acres.

To fill up bare places in the coupes of the West Thána Division, pit planting was chiefly resorted to with fair success and a considerable quantity of seed was scattered about the forests to aid natural reproduction. A small plantation occupying 3 acres was started at Rábále in the Sálsette Range, and the usual method of sowing and transplanting was adopted. The success of the plantations was not, however, assured, as a large number of the young plants died off ; the exception being in the case of some teak and ain transplants, which remained healthy throughout the hot weather, though their growth was necessarily slow.

122. In the Surat Division the results of the year's operations are said to be successful, especially in the small coupes of the Bulsár and Chikhli ranges. In Mándvi, however, owing to the majority of the plants on the area (177 acres) taken in hand in the previous year having died off, the same was replanted with teak and other valuable species ; new plantations covering 18 acres were created in the Wareth Reserve.

123. Artificial as well as natural reproduction has no chance in the forests of the Dángs so long as fires sweep over them year after year from end to end.

124. In the Panch Maháls Division 247 maunds of miscellaneous seeds were collected and sown by forest guards over 410 acres with very indifferent results. Mr. Fisher reports that "operations of this and past years show very poor results,—in fact, none from an economic point of view." The cause of failure appears to be that sufficient supervision has not been exercised in the past over the subordinates in this matter. The Divisional Forest Officer's attention has been drawn to this fact, and it is hoped that cultural operations will be better looked after in the years to come.

125. The area and cost of the foregoing operations in the several divisions were as under :—

No.	Division.	Area	Cost.	Remarks.
		Acres.	Rs. a. p.	
1	East Thána	5,129	.....	
2	West Thána	24,512	474 0 0	
3	Surat	1,380	466 0 0	
4	Panch Mahals	742	.....	
	Total ...	31,763	940 0 0	

(3). Early Thinnings.

126. This operation is of a very delicate nature and, unless intelligently performed, it ceases to be advantageous in the interest of the young stock. Such work, therefore, cannot be entrusted to the subordinates, and has not been undertaken hitherto by Divisional Forest Officers personally, owing to the extent of their charges and the minute attention they are required to pay to details in the general working of the forests.

(4). Other operations for the improvement of the growing stock.

127. Forest guards in all the divisions of this Circle, with the exception

of the Panch Mahâls, are equipped with axes or bill hooks for the purpose of destroying creepers and other noxious growth, and a large amount of work is thus performed, but it fails to make any visible impression, as a rule, on the forests. During the past year, however, the standards in some of the closed coupes of the West Thána Division were specially ordered to be freed of the Loranthus longifolia parasite described in paragraph 187 by Mr. Shuttleworth in the last report. For the Máhim and Váda ranges alone details are available: in the former 37 coupes were treated at a cost of Rs. 56, and in the latter 4,903 creepers were cut by forest guards, entailing no expense.

(*5*). *Experiments.*

128. In the East Thána Division the only experiment made during the year was with Casuarina equisetifolia, seeds of which were sown in baskets and distributed among the beats in the Murbád Range. A fair percentage of the plants appears to have survived the hot weather, but it is doubtful whether they will thrive so far from the sea-coast. The Gulf-date palm seedlings in Mokháda, which were reported to be doing so well in 1890-91, are said to be thriving, having reached a height of 3 to 4 feet, but it is very doubtful whether they will bear fruit. In the Surat Municipal Gardens, where the tree has flourished for nine or ten years, it has not fecundated.

129. The growth of the casuarina in the small experimental plantations in the Dáhánu and Umbargaon ranges of the West Thána Division continued to make satisfactory progress. In the last-named range it was not deemed necessary to water the Deheri plantation any longer. A few of the plants certainly did die off, but it was not proved that their disappearance was due to want of moisture. Experiments for introducing the Gulf-date palm and the sandalwood tree (Santalum album) have not met with any success. Mr. Millett reports as regards the latter that—

"Many experimental sowings of seed have been made, but the plants that come up are poor, stunted and scentless; the majority quickly die. Those that survive give more trouble than they are worth."

130. In the Surat Division the anticipated success of the casuarina plantation, commenced last year near Tithal, has not been realized, as out of 500 seedlings transplanted from the nursery, only 260 were able to survive the hot weather, notwithstanding that the plantation was watered by hand all throughout the dry season, and measures were taken to protect the plants from the south-westerly winds. The sandalwood trees reared in the Bulsár Range some three or four years ago are particularly healthy-looking and have attained a height of 4 feet.

131. In the Panch Mahâls Division no new experiments were attempted during the year. The Gulf-date palm is the only exotic which has taken kindly to this division, there being 98 plants alive.

(*d*). Exploitation of Major Forest Produce.

132. The method of coppice with standards is applied to the forests of the Thána District, but the exploitation actually carried on partakes more of the character of improvement fellings. This mode of working is inevitable, considering that the condition of the forests is as irregular as it possibly can be, owing to their neglected state before Government took up their management, and since their acquisition even having not been treated under any rational system for a number of years. It is sought in this way to combine the advantages of certain reproduction with the improvement of the existing growing stock. The whole area is now divided into 282 blocks, to which a rotation of forty years is applied, so that the extent of the area set apart for exploitation annually is one-fortieth part of each block. According to this sub-division, exploitation of major forest produce was carried on in 225 compartments covering about 12,032 acres.

133. In the Surat Division the forests were exploited in different ways to suit local conditions. Selection and improvement fellings were undertaken in the Mándvi Range over an area of 347 acres yielding 13 trees, or 36 cubic feet to the acre. The method of treatment adopted in the Thána Division was applied

to the four small isolated blocks in Bulsár, Chikhli and Mándvi ranges. And the leased forests of the Dángs continued to be worked on the old system, that of permitting contractors to remove a specified quantity of such description of timber as meets with their requirements.

134. Major forest produce throughout the year was chiefly exploited from occupied and waste lands in the Panch Maháls Division, as there was a pressing demand to clear such lands to make them available for cultivation. Thus the forests enjoyed almost a complete rest which they are so much in need of.

(*e*). Extraction and Transport of Major Forest Produce by Land and Water.

135. The standing crop offered for sale in the several compartments laid out for the year finding ready purchasers, departmental agency is now very seldom employed in the Thána District for extracting major forest produce. The Department, however, is compelled under the orders contained in Government Resolution No. 7107, dated 6th September 1892, to make arrangements for felling such of them as cannot be disposed of in this manner, in order to supply small branch-wood material for ash manure and fuel for domestic purposes to the surrounding population. In the year under report, although there were 59 unsold coupes, departmental fellings were confined to 4 only. This was decided upon with the consent of the Revenue authorities after it had been shown that the local demand for "ráb" could be easily met from lands outside forest limits, and that owing to the inaccessible situation and poor growth of the coupes the operations would result in a heavy loss to Government.

136. Both land and water carriage is used in this district, the greater portion of timber and fuel being carted from the coupes to the nearest water way or railway station. The extraction of major produce from the forests of the West Thána Division hardly offers any difficulty, as they are situated, as a rule, within easy reach of the one or the other. In the East Thána Division until communications between the foot of the ghâts and the main lines of road and rail, rúnning east and west, are improved, the removal of produce from the forests of Mokháda, Khardi and Murbád is impracticable, and, therefore, the coupes in these ranges are not sought after, and even when they are purchased, the contractors extract from them scarcely a fourth of the standing crop.

137. A scheme to facilitate the extraction of timber from the leased forests of the Dángs by a cheap means of communication as afforded by the Ambika River, which is estimated to cost Rs. 3,410 and which has been pronounced by the Executive Engineer, Surat, as "feasible" and "worth undertaking," is under consideration. The rocky obstacles to be met with in the channel are numerous, but the proposed outlay is small comparatively to the magnitude of the work, and, if sanctioned, a large saving will be effected in the cost of transport of timber from these outlying forests.

138. During the year under report, 2,350 bamboos were safely floated down as an experiment from Waghái to the Wághrech sale depôt on the sea-coast, a distance of 60 miles, out of a total of 2,950. The 600 which did not reach their destination were washed away to the sea owing to a heavy flood having suddenly overtaken them.

139. The forests of the Panch Maháls have only had hitherto to supply the very limited demand of the principal towns of the district; but when the Godhra-Rutlam Railway extension is completed, other markets, chiefly in the Ahmedabad and Kaira Collectorates, will be opened out to them.

(*f*). Exploitation of Minor Forest Produce.

(*1*). *Extraction of Fodder.*

140. The grass from the fodder reserves and other closures was not extracted by departmental agency anywhere in this Circle. It was, as usual, put up for sale by tender or auction.

141. In the East Thána Division, the outside demand being small owing to the distance of the markets from the places of production and a clause having been recently inserted in the sale terms requiring that purchasers were not to interfere with the villagers if they wished to exercise the free privilege of removing grass for their own consumption, no sales were effected during the year.

142. The fodder reserves of the West Thána Division being natural meadows, and conveniently situated along the Bombay Baroda and Central India Railway line in the Umbargaon, Dáhánu, Máhim and Sálsette ranges for the export of grass to Bombay, showed a further tendency of still increasing in value, as will appear from the details given in the following comparative statement:—

No.	Range.	Area in		Revenue during		Average per Acre.		Remarks.
		1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	
		Acres.	Acres.	Rs.	Rs.	Rs. a. p.	Rs. a. p.	
1	Sálsette ...	1,387	1,276	767	749	0 8 10	0 9 4	
2	Máhim ...	2,173	2,173	9,517	10,701	4 6 0	4 14 9	
3	Dáhánu ...	2,800	2,800	505	955	0 4 9	0 5 0	
4	Umbargaon ...	256	256	408				
	Total ...	6,616	6,505	11,197	12,405	1 11 1	1 14 6	

143. In Surat the extraction of grass from closed areas is very limited, as its quality is very poor, and consequently the revenue derived therefrom is inconsiderable. The Dángs would produce an enormous quantity of grass but for the determined way in which these forests are fired year after year. No appliances at our disposal, however, would make the export of grass remunerative from these forests to parts of Surat and Khándesh, in which fodder is scarce at times and always dear.

144. It appears that the Panch Mahál "birs" have not revived from the drought of 1887 which killed the more valuable species, and it is stated that the process of ousting the latter by the inferior kinds commenced then has not stopped yet. The receipts were, however, only Rs. 26 less than in the previous year; the figures being Rs. 1,329 as against Rs. 1,355.

(2). *Grazing.*

145. The number of animals of different kinds grazing free within forest limits cannot be stated accurately until the grazing rules published under Government Resolution No. 3595, dated 23rd May 1890, are uniformly applied to all the districts of this Circle and the owners compelled to take out passes in conformity therewith. The number shown in Form No. 55 (276,082) does not appear to have been exaggerated; however, it is probably under the mark than over when it is taken into consideration that the agricultural stock of the Thána, Surat and Panch Mahál districts comes to 1,128,003 according to the latest return. Thus by exercising the privilege of free grazing the agricultural population in the vicinity of the forests are richer by over (1¾) one and three-fourth lákhs of rupees.

146. A comparison is made, in the following statement, of the number of animals licensed for grazing at full and privileged rates during the year 1891-92 and 1892-93;—

No.	Division.	Number of Animals.		Amount of fees paid.	
		1891-92.	1892-93.	1891-92.	1892-93.
				Rs.	Rs.
1	East Thána...	9,476	4,430	8,505	3,682
2	West Thána	2,411	1,018	3,141	1,477
3	Surat	2,689	739	3,135	853
4	Panch Mahál	17,597	5,231	15,734	4,307
	Total ...	32,173	11,418	30,515	10,319

The decrease in East Thána is very probably due to village officers having put too liberal an interpretation on the term "free cattle." In West Thána it would appear that the fees are being collected with more circumspection than in the previous year. The falling off in the Panch Mahâls is attributed to the exclusion of "foreign" cattle in the early part of the year.

(3). *Miscellaneous Produce.*

147. Satisfactory arrangements were made during the year to carry out the instructions issued in Government Resolution No. 9846, dated 15th December 1892, to regulate the collection of minor forest products in the Thána and Surat districts. The proposals made by the Divisional Forest Officers were, as a rule, accepted *in toto* by Revenue Officers, and will hardly require any modification for a few years to come.

148. In Thána it was thought proper, having regard to local conditions and past results, to keep the exploitations of myrabolams, hirdas (Terminalia chebula), apta leaves (Bauhinia racemosa), toddy palm leaves (Borassus flabelliformis) and fruits and beheda nuts (Terminalia belerica) under effective control, leaving the collection of other products, such as jungle fruits, honey, wax, gum, karvi, &c., free and unrestricted to the wild tribes and people of forest villages. Further, these classes were permitted to collect apta leaves and fruits and leaves of brab trees for their *bonâ fide* own use; the latter products were given at the discretion of the Divisional Forest Officers only.

149. The value of the myrabolams farm has considerably diminished in value during the year, as the fruit produced by trees standing on occupied uplands has ceased to be a part of the forest revenue owing to Government in their Resolution No. 10087, dated 23rd December 1892, having reserved no fruit-bearing trees. The receipts in consequence fell from Rs. 6,020 in 1891-92 to Rs. 907 in 1892-93.

150. Of the two trees, apta (Bauhinia racemosa) and tembhurni (Diospyros melanoxylon), whose leaves are used as wrappers for cigarettes by the people generally, the latter has been so much damaged in the past during the process of plucking that it was considered desirable to put a stop altogether to the farming of its leaves, and in order to further improve its growth, mutilated specimens to be met within the coupes are no longer to be reserved as standards, as was the practice in former years, for the sake of its fruit. The tembhurni coppices fairly, and if the injured and deformed trees are properly cut and trimmed, and the leaves protected, it ought to yield good timber when it reaches the exploitable age. The main utility of the apta trees lies in its leaf, it being not valuable as timber. It is also very hardy, stands a good deal of knocking about, and does not suffer to the same extent as the tembhurni from harmful treatment. The demand for its leaves is already fairly large, and there is a prospect of its increasing in proportion to the diminished supply of tembhurni leaves, and, therefore, its exploitation has to be restricted.

151. The revenue arising from the farm of toddy palm leaves and fruit varies from Rs. 1,858 to Rs. 1,435, and has shown a tendency to increase. There can be no objection to reserve these products, especially as the *bonâ-fide* wants of the wild tribes and the people of forest villages are safeguarded.

152. The receipts from beheda nuts has hitherto been small, but the demand may greatly increase in future, as this product is an important one. Moreover, it is not used locally, and in the interest of the trees it is necessary that the collection should be kept under control.

153. In three tálukas (Chikhli, Bulsár and Párdi) out of the four in the Surat Division the area under forests is very limited, and the condition of the country and the people so prosperous that it was not deemed advisable to apply the principles for regulating the collection of minor forest products laid down in the Resolution of Government quoted above. The Collector, Mr. Lely, conveyed his approval of this proposal in the following terms :—

"I have the honour to express my entire agreement that no concession should be made as to minor forest produce in the tálukas of Chikhli, Bulsár and Pardi. The area of the

forests there is so small, and the circumstances of the people such as to justify the exercise of rigid conservancy."

154. In the Mándvi Táluka all minor products were allowed to be collected and removed free of charge, with the exception of mhowra flowers, by the wild tribes and people of forest villages. A fee of four annas a maund was imposed on this product, and permission to tap toddy trees within forest limits when solicited was granted on the payment of a rupee per tree.

155. The arrangements for regulating the collection and sale of minor products under the procedure laid down in the Resolution quoted above in the forests of the Panch Maháls and those leased from the Rájas in the Dángs were not completed when the year closed.

CHATER III.

GROSS YIELD AND OUTTURN OF FOREST PRODUCE.

DEPARTMENTAL OPERATIONS.

156. The following summary exhibits the quantity of timber and other forest produce worked out departmentally during the two years 1891-92 and 1892-93 :—

No.	Division.	Year.	In Cubic Feet.		In Number.	In Khandis.
			Timber.	Firewood.	Bamboos.	Hirdas.
						Kh. mds. lbs.
1	East Thána ...	1891-92 ...	17,247	...	...	143 7 0
		1892-93 ...	32,550	20,376	...	30 13 12
2	West Thána	1891-92 ...	10,839	79,602	...	70 3 0
		1892-93 ...	1,245	4,714	...	9 11 0
3	Surat ...	1891-92 ...	1,76,665	18,491	...	.....
		1892-93 ...	77,685	...	3,000	.....
4	Panch Maháls	1891-92 ...	25,415	210,700	...	.....
		1892-93 ...	4,070	10,700	...	.....
	Total	1891-92 ...	230,166	308,793	...	213 10 0
		1892-93 ...	115,550	35,790	3,000	39 24 12

157. In the two Thána divisions, variations in the yield of timber and firewood do not call for any special remarks; as their extraction depends on the number of unsold coupes of the year, it is necessary to exploit for the convenience of the privileged classes at the instance of the Revenue Department.

158. In the Surat Division there was less timber worked out, as it was deemed necessary to limit the exploitation in the Dángs to such quantities as could be disposed of during the year from the Wághrech and other sale depôts without running the risk of overfeeding the markets.

159. Departmental operations in the Panch Maháls were suspended to prosecute vigorously the clearing of reserved wood from occupied and other lands. The yield of the year shown in the foregoing statement represents the quantity of produce derived from boundary-line clearances.

160. Bamboos were only cut by departmental agency to permit of floating operations being undertaken down the Ambika River from Waghái in the Dángs to the Wághrech depôt on the sea-coast.

161. The hirda crop of the year was the worst hitherto known, and consequently the quantity collected was much less than in the previous year.

162. The following is an abstract of the details exhibited in Form No. 59 :

No.	Division.	Balance on 1st April 1892.			Outturn of the year (15 months).			Total of Columns 5 and 8.	Disposed of during the year.			Balance on 30th June 1893.		
		Timber.	Fire-wood.	Total.	Timber.	Fire-wood.	Total.		Timber.	Fire-wood.	Total.	Tim-ber.	Fire-wood.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	12	13	15
		C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
1	East Thána	6,027	25	6,052	32,550	20,376	52,926	58,978	38,577	20,401	58,978	...	...	...
2	West Thána	4,335	45,837	50,172	1,245	4,714	5,959	56.131	4,236	48,301	52,537	1,344	2,250	3,594
3	Surat	56,025	...	56,025	77,685	...	77,685	133,710	130,003	...	130,003	3,707	...	3,707
4	Panch Mahals	956	...	956	4,070	10,700	14,770	15,726	4,206	8,400	12,606	820	2,300	3,120
	Total ...	67,343	45,862	113,205	115,550	35,790	151,340	264,545	177,022	77,102	254,124	5,871	4,550	10,421

It will be seen from the above figures that the departmental transactions of the several divisions were so far successful that the quantity worked out during the year of this report as well as the balances on hand from previous years were to a great extent disposed of. In Surat it is satisfactory to notice that the combination of traders, complained of in previous years, received a wholesome check chiefly owing to some of the sale depôts having been worked on the share system. This system can safely be applied to such forests as those of the Dángs which it is impossible to bring under a regular method of treatment under existing circumstances. Its one advantage is that contractors who undertake the supply are cautious not to stock the depôts with inferior timber for which there is no market. For it is stipulated in the contract agreement that as long as any material remains unsold it lies in the depôts at their risk.

Removal of Produce by Purchasers.

Timber and Firewood.

163. *Thána.*—The compartments of the year marked out for exploitation were put up for sale, as usual, in August. For the West Thána coupes competition amongst intending buyers being fairly keen, the majority of them were easily disposed of, and the offers accepted were a little higher than the year before. In East Thána the results were not so favourable owing to the inaccessibility of some of the coupes as well as to the inferior quality of the standing crop in others. A belief prevailed that all forest produce outside the Government forests would be handed over to the occupants, and this belief may also have had a disturbing effect on the market.

164. The following table shows the number and extent of the compartments laid out for the year and similar information regarding those sold, with other details :—

No.	Division.	Compartments laid out.		Compartments sold.		Receipts.	Average Price per Acre.
		No.	Area in Acres.	No.	Area in Acres.		
			A. g.		A. g.	Rs. a. p.	Rs. a. p.
1	East Thána ...	122	6,759 20	85	4,711 20	92,553 0 0	19 6 11
2	West Thána ...	162	8,522 30	140	7,321 10	2,62,251 0 0	35 12 0
	Total ...	284	14,206 0	225	12,032 30	3,54,804 0 0	29 7 7

Although the price per acre in East Thána was only Rs. 19-7-0 per acre, the coupes which are conveniently situated, as those of the Bhiwndi Táluka, yielded a revenue of Rs. 26-1-2, while those in Mokháda only produced Rs. 11-6-6. It has been mentioned before (*vide* paragraph 135) that it was not considered necessary to exploit departmentally more than four coupes out of 59 remaining unsold.

165. The gross yield, in cubic feet, of timber and firewood extracted from the coupes is given below :—

No.	Division.	Teak, cubic feet.	Junglewood, cubic feet.	Firewood, including charcoal, cubic feet.	Remarks.
1	East Thána	511,918	255,959	661,993	
2	West Thána	1,148,247	687,528	2,954,850	
	Total ...	1,660,165	943,487	3,616,843	

These figures, it must be noted, have not been derived from actual measurement, but are fairly accurate as showing the amount of forest produce brought to export bandars and railway stations by contractors. The local demand, specially for timber, being small, it may be safely left out of calculation.

166. The material is roughly classified and estimated by Depôt officers on its removal, according to the following formulæ of conversion :—

Beam	...=32 cubic feet
First class rafter ...	...=14 ,,
Second class rafter ...	...= 6½ ,,
Third class rafter ...	...= 3½ ,,
Piece	...= 3 ,,
Ordinary cart-load of firewood	...=45 ,,
Khandy of charcoal ...	...=50 ,,

167. Some coupes are well cleared, and not a stick remains—for example those of the Bassein Range, whereas in others, from which facilities of export are not so numerous, a considerable quantity of both timber and firewood is left. Such material of course has not been taken into account in the above statement.

168. In addition to the outturn from these regular operations, the quantity of firewood removed by privilege-holders and other permit pass-holders has been roughly estimated at 600,000 cubic feet.

169. *Surat.*—The quantity of timber and firewood removed by purchasers and consumers during the two years under comparison was as under :—

Year.	Timber, cubic feet	Firewood, cubic feet.	Total cubic feet.
1891-92	43,509	35,130	78,639
1892-93	68,690	30,739	99,429

The markets were not fed to the same extent as in the previous year by importation from the Thána forests, and, therefore, the demand for all descriptions of timber from the forests of the Dángs revived and continued brisk throughout the year.

170. *Panch Maháls.*—The outturn of the year is compared with that of the preceding year in the following statement ;—

Year.	Timber, cubic feet	Firewood, cubic feet.	Total.
1891-92	37,196	239,400	276,596
1892-93	208,068	242,281	450,349
Difference ...	+170,872	+2,881	+173,753

The timber worked out by purchasers and consumers was chiefly derived from lands outside forest limits, and prices ruled high. There is a slight falling off in the yield of firewood, due probably to a large quantity having been supplied in the previous year to the Godhra-Rutlam Railway Extension Works for brick and lime burning.

Bamboos.

171. The trade in bamboos was further developed, and the results of the year's operations show, in almost all the divisions, a considerable advance over the last year. The demand appears to be on the increase, notably in the Dángs. The yield and receipts of the two years were as under :—

No.	Division.	Bamboos removed, 1891-92.				Bamboos removed, 1892-93.				Remarks.
		Cart-loads.	Head-loads.	Number.	Amount realized.	Cart-loads.	Head-loads.	Number.	Amount realized.	
					Rs.				Rs.	
1	East Thána	740	1,843	303,992	7,439	1,086	6,386	288,673	9,004	* Large number of bundhis were removed.
2	West Thána	8,560	...	240,887	10,663	8,655	5,525	*2,027,223	12,705	
3	Surat	...	...	727,032	16,306	...	...	1,136,155	25,364	
4	Panch Mahals	99	4	143,378	1,661	193	...	217,272	2,899	
	Total ...	9,399	1,847	1,415,289	36,119	9,934	11,911	3,669,323	49,972	

Minor Produce.

172. The following comparative statement will show that the maxim laid down in Government Resolution No. 9846, dated 15th December 1892, that it is not necessary to make a revenue from minor forest produce, has been duly observed in this Circle :—

No.	Division.	Value realized in 1891-92.	Value realized in 1892-93.
		Rs.	Rs.
1	East Thána	2,267	655
2	West Thána	4,120	2,475
3	Surat	2,176	2,103
4	Panch Mahals	1,942	2,371
	Total ...	10,505	7,604

Free Grants of Forest Produce.

173. The following is a statement showing the free grants of timber made during the last two years in the several divisions of this Circle under the sanctioning authority of the Commissioner, N.D. :—

No.	Division.	Value of the free grant during 1891-92.	Value of the free grant during 1892-93.
		Rs.	Rs. a. p.
1	East Thána	652	378 8 0
2	West Thána	.....	49 12 0
3	Surat	15	703 0 0
4	Panch Mahals	535	729 4 0
	Total ...	1,202	1,860 8 0

CHAPTER IV.

FINANCIAL RESULTS.

174. Financially the results of the year 1892-93 may be considered satisfactory, as they compare very favourably with those of 1890-91, the best on record. In that year the gross receipts and net revenue were respectively larger by Rs. 2,000 and 5,000. It must be remembered that the collection of minor forest produce was not then limited to the same extent as it was in 1892-93, and the capital and the establishment charges were also necessarily less.

175. The gross revenue, expenditure and surplus of the Northern Circle for the two past years were :—

Year.	Revenue.	Expenditure.	Surplus.
	Rs. a. p.	Rs. a. p.	Rs. a. p.
1891-92	6,14,271 5 1	2,43,194 12 3	3,71,076 8 10
1892-93	6,35,448 10 2	2,69,286 6 11	3,66,162 3 3

Owing to the sales of timber, bamboos and other forest produce removed direct from the forests being larger, especially in the Dangs, and to prices obtained for the wood cut on revenue lands in the Panch Maháls Division being exceptionally high, expenditure of the year was very fairly balanced by the swollen receipts.

176. The gross revenue of 1892-93 was more by Rs. 21,177 than that of 1891-92, but the net revenue shows a decrease of Rs. 4,914. This falling off is considerably less than was expected, and would have been fully covered if such a large sum as Rs. 28,540 had not been spent on the acquisition of land for forest purposes during the year under report.

177. The distribution of receipts among the several divisions compared with that of the previous year is exhibited in the following statement :—

No.	Division.	Receipts during 1891-92.	Receipts during 1892-93.
		Rs. a. p.	Rs. a. p.
1	East Thána	1,27,438 8 1	1,23,649 0 0
2	West Thána...	3,05,430 8 11	3,08,692 12 8
3	Surat	1,04,299 4 4	1,20,014 3 0
4	Panch Maháls	77,102 15 9	83,048 4 2
5	Bombay Forest Survey	.....	44 6 4
	Total ...	6,14,271 5 1	6,35,448 10 2

There is a small decrease of Rs. 3,789 in the East Thána Division due to realizations under I. *e.* and II. *e.* having fallen off considerably. If the crop of hirdas had been an average one, the loss would have been converted into profit.

178. The difference in revenue (Rs. 3,262) though not large is in favour of the year under report in the West Thána Division and is the highest ever obtained. If a sum of about Rs. 3,000 had not remained unadjusted through an oversight, the results would have been even more satisfactory than they were.

179. The receipts of the Surat Division are Rs. 15,715 in excess of the actuals of the past year, and this rise is due to the larger quantity of timber and bamboos removed from the leased forests in the Dángs by wood merchants and to the recovery of a sum of Rs. 5,300 left outstanding at the close of the year 1891-92.

180. In the Panch Maháls Division the increase in receipts amounts to Rs. 5,945. This excess over the previous year is attributable to prices having

risen owing probably to the importations of timber and firewood from the forests of the adjacent Native States having fallen off through reckless management in the past.

181. The following statement shows the expenditure for the two years under each main head:—

Head of Service.	Actual amount of expenditure during 1891-92.	Actual amount of expenditure during 1892-93.	Increase.	Decrease.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A I	21,153 14 8	7,962 5 5	.....	13,191 9 3
A II	13,767 10 11	12,040 1 0	.....	1,727 9 11
A III	82 15 5	57 7 0	.....	25 8 5
A IV	.....	.....	.....	.....
A V	13,635 1 6	16,963 4 6	3,323 3 0	.....
A VI	371 5 2	1,303 12 6	932 7 4	.....
A VII	5,463 10 4	4,136 4 1	.....	1,327 6 3
A VIII	44,756 1 2	70,783 2 4	26,027 1 2	.....
A IX	1,115 10 1	762 8 2	.....	353 1 11
Total A ...	1,00,346 5 3	1,14,008 13 0	30,287 11 6	16,625 3 9
B I	1,18,767 1 6	1,30,544 2 9	.....	.....
B II	18,203 15 9	18,889 14 1	.....	.....
B III	5,877 5 9	5,343 9 1	.....	.....
Total B ...	1,42,848 7 0	1,55,277 9 11	.....	.....
Add A ...	1,00,346 5 3	1,14,008 13 0	.....	.....
Grand Total ...	2,43,194 12 3	2,69,286 6 11	.....	.....

Notwithstanding that during the year the expenditure under one main head alone, *viz.*, A. VIII.—Demarcation, Improvement and Extension of Forests, was Rs. 26,027 over that of the previous year, the total of the Circle shows an increase of Rs. 13,663 only. This result could only be obtained by utilizing available savings, and cutting down expenses on other heads, as the urgency of completing the purchase of all the land proposed to be acquired on the catchment area of the Tánsa Lake before the 31st March 1893 could not be neglected. The demands of the special officer being so much in excess of the sum allotted for the purpose, no other way was possible for meeting his requirements. Fortunately there was no necessity of undertaking departmental fellings and other operations to the same extent as last year in the two Thána and Panch Maháls Divisions. In the Dángs also the difficulty of procuring labour being greater than usual owing to cholera having broken out, the contemplated departmental operations could not be carried out in their entirety by the close of the year. The savings thus available under A. I. and the retrenchments made under other main heads went, therefore, towards meeting the high expenditure of Rs. 70,783 under A. VIII. incurred during the year.

182. The charges under B.—Establishments show an increase of Rs. 12,429 over last year, which was to be expected seeing that no part of the Direction charges were debited to the previous year.

CHAPTER V.

FOREST ADMINISTRATION.

ADMINISTRATIVE CHARGE.

183. An important feature in the forest administration of the Presidency was the division of the old Northern Circle into two under the authority of Government Resolution No. 8315, dated 22nd October 1892.

184. The changes effected in pursuance of this separation have been fully described in the introductory chapter, and, therefore, it is not necessary to refer to them here.

185. The Honourable Mr. A. T. Shuttleworth, Conservator of Forests, 1st Grade, was in administrative charge of the four divisions comprised in this Circle up to the 5th of November 1892, when I relieved him of it.

186. I hope I won't be considered presumptuous if I take this opportunity of recording that all officers in this Circle, superior and subordinate, have keenly felt the severance from Mr. Shuttleworth, under whom they had the good fortune to serve for a good many years, and whom they regard officially as well as socially with affection and respect.

CONTROLLING CHARGES.

187. No changes were made in the controlling charges beyond those referred to in paragraph 21. The old designations North and South Thána were certainly misnomers, as the two divisions overlapped one another, and the alteration of names to east and west and redistribution of executive charges effected during the year were very desirable.

188. The controlling charges were held by the following officers for the periods shown against their names :—

No.	Division.	Name of Officer.	Rank.	Designation.	Period of holding charge.	
					From	To
1	East Thána.	Mr. L. S. Osmaston ...	Assistant Conservator of Forests, 1st Grade.	Divisional Forest Officer.	1st April 1892 ...	21st July 1892.
		,, G. P. Millett ...	Deputy Conservator, 4th Grade ...	Do. ...	22nd July 1892 ...	10th January 1893.
		,, C. Greatheed ...	Do. 3rd Grade ...	Do. ...	11th January 1893	30th June 1893.
2	West Thána.	,, G. P. Millett ...	Do. 4th Grade ...	Do. ...	1st April 1892 ...	Do.
3	Surat...	,, R. H. Madan ...	Extra Assistant Conservator, 2nd Grade.	Do. ...	Do. ...	15th August 1892.
		,, W. A. Wallinger...	Do. do. ...	Do. ...	16th August 1892.	12th April 1893.
		,, F. R. Dasai ...	Deputy Conservator, 1st Grade ...	Do. ...	13th April 1893 ...	31st May 1893.
		,, W. A. Wallinger...	Extra Assistant Conservator, 2nd Grade.	Do. ...	1st June 1893 ...	30th June 1893.
4	Panch Mahâls.	,, H. W. Keys ...	Deputy Conservator, 4th Grade ...	Do. ...	1st April 1892 ...	12th May 1892.
		,, W. F. D. Fisher...	Assistant Conservator, 2nd Grade.	Do. ...	13th May 1892 ...	30th June 1893.
5	Working Plans.	,, T. B. Fry	Deputy do. do. ,,	Do. ...	1st April 1892 ...	Do.

189. Prior to and since the formation of this Circle leave of absence was granted to the following officers :—

No.	Division.	Name of Officer.	Designation.	Kind of Leave.	Period of Leave.	Government Resolution sanctioning the leave.
1	Panch Mahâls.	Mr. H. W. Keys ...	Divisional Forest Officer.	Furlough	18 months.	.....
2	East Thána ...	,, L. S. Osmaston ...	Do. ...	Leave on medical certificate.	6 months ...	Government Resolution No. 3216, dated 9th August 1892.
3	Surat	,, R. H. Madan ...	Do. ...	Privilege leave ...	2 months ...	Government Resolution No. 3222, dated 10th August 1892.
4	Do.	,, W. A. Wallinger...	Do. ...	Do ...	1 month and 25 days.	Government Resolution No. 3194, dated 3rd May 1893, and Government Resolution No. 3888, dated 29th May 1893

SUB-DIVISION CHARGES.

190. The sub-division charges under Extra Assistant Conservator of Forests were remodelled and their designations also changed following the redistribution of executive charges in the Thána District, as shown below :—

No.	Division.	Name of Sub-Division.	Names of Ranges comprising the Sub-Division.
1	East Thána ...	Sháhápur ...	Sháhápur, Khardi, Murbád, Mokháda.
		Kalyán	Kalyán, Bhiwndi and Váda.
2	West Thána ...	Dáhánu	Dáhánu, Umbargaon
		Bassein	Bassein, Máhim, Sálsette.

191. The Dáhánu Sub-Division is in abeyance owing to the transfer of Mr. Robinson, Extra Assistant Conservator of Forests, together with his office establishment to the Southern Circle. It is to be regretted that, owing to the paucity of officers available, the full strength of four sub-division officers was not maintained for a portion of the year in the Thána District, in which extensive felling operations are carried on all throughout the dry season. The following officers held charge of the several sub-divisions during the year :—

No.	Division.	Name of Officer.	Rank.	Designation.	Period of holding charge.	
					From	To
1	East Thána.	Mr. A. N. Master ...	Extra Assistant Conservator, 4th Grade.	Sháhápur Sub-Division Forest Officer.	1st April 1892 ...	30th June 1893
		„ W. F. D. Fisher ...	Assistant Conservator, 2nd Grade ...	Kalyán do. ...	Do. ...	10th May 1892.
		„ L. S. Osmaston ...	Do. 1st Grade ...	Do. do. ...	11th May 1892 ...	2nd June 1892.
		„ K. B. Phadke ...	Extra Assistant Conservator, 4th Grade.	Do. do. ...	3rd June 1892 ...	30th June 1893.
2	West Thána.	„ A. C. Robinson ...	Do. ...	Dáhánu do. ...	1st April 1892 ...	14th January 1893
		„ V. D. P. Rebeiro ...	Do. ...	Bassein do. ...	Do. ...	30th June 1893.
	Surat.	„ K. B. Phadke ...	Do. ...	Surat do. ...	Do. ...	19th May 1892.
		„ R. H. Madan ...	Do. 2nd Grade ...	Do. do. ...	20th May 1892 ...	27th May 1892.
		„ C. G., Dalia	Do. 4th Grade ...	Do. do. ...	28th May 1892 ...	30th June 1893.

EXTERNAL RELATIONS OF THE FOREST DEPARTMENT.

192. I have much pleasure in acknowledging the cordial assistance and support which I have invariably received from the Collectors. If it had not been for their hearty co-operation, my task in conducting the administration of this Circle would have been beset with greater difficulties than it actually was, especially as I was new to the Konkan and Gujarát, and I had consequently much to learn when I took over charge.

193. The relations between the local Revenue and Forest officers were maintained on a harmonious footing throughout the year, and the Divisional Forest Officers one and all have displayed good sense and tact in their dealings with their respective Collectors.

ESTABLISHMENTS AND THEIR RECRUITMENT.

194. The Divisional Forest Officer, Surat, has experienced considerable difficulty in recruiting the lower protective staff chiefly for the forests of the Dángs and Mándvi ranges. These localities being notoriously unhealthy, the better class of men—Maráthás from the Deccan and the Konkan—have a perfect aversion to serve there. In order that they may be induced to do so it has been proposed to Government to sanction the grant of a special local allowance, and it is hoped by these means it will be possible to supplant the local men, who have been found inefficient, lazy and untrustworthy.

195. All the Collectors support the Divisional Forest Officers in recording that the present subordinate establishments generally are exceedingly inadequate. Looking at the magnitude of the tasks set them it is not surprising that the general conduct of the lower protective staff leaves much to be desired. But there is no doubt that with an establishment of the strength demanded by the work, and justified by the revenue derived from the forests, a considerable improvement in this direction might be expected.

FOREST INSTRUCTION.

196. Mr. Gleadow, Professor of Forestry at the College of Science, Poona, conducted his students on a tour over some of the forests, plantations and depôts in the Sháhápur Range during the month of December 1892. Mr. Millett, who at the time had not been relieved of the East Thána Division, accompanied the party for a few days and helped the Professor in explaining to the students the different operations which were in progress.

GENERAL REMARKS.

197. An important and explicit ruling came out during the year on the vexed question of the disposal of trees in occupied lands in the Thána and

Kolába districts. The final orders of Government therein expressed are that "in all occupied lands, whether classed as rice, garden, rabi or varkas the right to all royalty trees, *viz.*, teak, blackwood and sandalwood, and, in the tálukas coming under the Sanján and Kolvan settlements, tiwas vests in Government. .... As regards rice, garden or rabi lands Government will, as an act of grace and favour, waive its rights to trees whether reserved or unreserved standing on such lands..... But in varkas lands the felling of teak, blackwood and sandalwood trees and tiwas where reserved, without the permission of the Collector, is strictly forbidden..... As regards unreserved trees..... no claim should be made to them on varkas or other occupied lands."

198. These orders may affect the timber trade of the Thána District hereafter, but they have not done so this year (1893-94), as the departmental sales held last August have been successful beyond all precedent. Not only were the prices offered higher than ever before, but the percentage of coupes remaining unsold was much smaller. The demand was even so great that offers were pouring in, after the year's sales had been held, to take up the unfelled compartments of the years 1889-90 and 1890-91. Moreover, it is satisfactory to notice that the Collector of Thána has, through his Assistants and subordinates, warned the occupants that if by reckless fellings in their holdings they deprive themselves of ash-manure material they must not look to Government to make good the supply in after years from State forests. The removal of royalty trees is also regulated in a satisfactory manner. Through the courtesy of the Revenue head of the district every application is referred to the Forest Department in order that its officers may have the means of judging of each case on its merits before it is disposed of.

199. The occupants have not so far abused the liberality of Government, and as long as the measures introduced by Mr. Sinclair to safeguard the interests of the State are carefully observed, there is no fear of the concessions proving otherwise than beneficial to the people.

200. Having had no opportunity of gaining any experience whatever of the Konkan and Gujarát forests previous to my appointment to this Circle, my first tour was planned both for the purpose of instruction as well as of inspection. I had arranged to visit all the divisions before the rains, and if I had not been compelled to wait in Surat until my personal office establishment could be organized, I might have had no difficulty in carrying out my original intention. But the supervision of the extensive and important timber and other operations in the Thána and Dángs forests took all the time at my disposal, and consequently I had to defer my inspection of the Panch Maháls forests to another year.

201. Leaving on the 5th December, after having got together a small establishment of one clerk and three peons from the sanctioned staff, I marched through the Bulsár Range accompanied by the Divisional Forest Officer for a few days and reached Bhilád in the Thána District on the 17th. During the time Mr. Wallinger and I were together we took the opportunity of taking stock of the old timber in the Wághrech sale depôt, as it appeared to me that the subordinates were perhaps trying to make too much of a sudden flood which had swept over the depôt in the rains to gain some dishonest purpose. This work resulted in the discovery of most of the timber which at first was reported to have been washed away to the sea and could not be found. From the 18th to the 23rd the important forests and depôts in the Umbargaon Range were visited and the camp was moved by rail during the Xmas week to Malyán. In the meantime arrangements for temporarily organizing my office were completed, and the clerks and peons seconded for duty from the Central Circle reported themselves to me after the holidays.

202. Going through the Dáhánu and Máhim ranges between the 3rd and the 14th January, I entered the Bassein Range on the 15th. Mr. Millett, Divisional Forest Officer, West Thána, joined me on the following day and conducted me through this range. What struck me most was that whereas, in the other ranges of his division I had already gone through, contractors had no intention of utilizing some of the inferior kinds of wood, the Bassein coupes

showed that every stick would be removed to which they were entitled under the terms of their agreements. On the 26th Mr. Greatheed, Divisional Forest Officer, East Thána, met me and went with me as far as Bhiwndi, where I had an opportunity of conferring with the Collector and the Divisional Forest Officer, Working Plans, on several important questions relating to the general forest administration of the Thána District. I left Bhiwndi on the 3rd February after paying a flying visit to the catchment area of the Pokhran Lake, which it is proposed to convert into meadow land for improving the quality of the water supplied to the town of Thána.

203. After travelling rapidly through the Kalyán and Murbád ranges, I reached Tánsa on the 20th February, and in company of Mr. Greatheed, who had gone there before me, inspected most of the forests round the lake. We then proceeded *viâ* Atgao to Khardi and from there advantage was taken of the Holi holidays to make a flying tour of inspection in the Mokháda Range from Kasára northwards to Koshimshet, the two offices and heavy baggage moving meanwhile to Suryámal, where they were rejoined on 6th March. From there I descended the Okde Ghát by the excellent road which has recently been completed by the Public Works Department. Mr. Greatheed following me, as there was some difficulty in procuring a sufficient number of carts for both establishments, and arrived at Váda on the 10th. Here a halt of three days was made to enable the two Divisional Forest Officers to effect the transfer of the executive charges sanctioned in Government Resolution No. 985, dated 4th February 1893.

204. From Váda I marched rapidly through the eastern portion of the Dáhánu and Umbargaon ranges which I had not been able to visit at the commencement of the season, and reached Sanjan on the 27th.

205. The whole camp was conveyed by rail to Bilimora during the Easter holidays on its way to the Dángs, arriving at Waghái on the 12th April. I did not leave the Dángs till the 22nd May, and would have done so some ten days earlier if I had not been prostrated by illness. I do not, however, regret the long time spent in these forests, however, as it enabled me to inspect thoroughly this valuable property and the timber operations carried on therein.

206. Mr. Wallinger having proceeded on privilege leave the day after my arrival at Waghái, and no officer being available to take his place, I performed divisional duties, in addition to my own, which also gave me an excellent opportunity of devoting special attention to the several works in progress. I regret to say that I found the fire discipline more lax than I expected to find it, and it was pointed out to the subordinates that, notwithstanding the difficulties they have to contend with, the wholesale devastation I saw wherever I went, would have been avoided if they had not shown such complete apathy in the matter of fire conservancy.

207. I also noticed that the timber contractors were allowed too much their own way, and the leniency shown to them hitherto was liable to be grossly abused, if not checked, considerably. It appears to have been the rule in the Dángs to allow contracts of one season to run on indefinitely, and it seemed to me that when a requisition was sent in, it was an understood thing that, if the contractor for any reason whatever was unable to remove the material he had purchased within the time allowed him, he would be permitted to take it away as it suited his convenience. The effect of such a lax procedure was that the grantees indented for double or treble the quantity of timber or bamboos which they knew they could not cut and remove within a fixed period, and it was impossible for the Divisional Forest Officer to exercise any check whatever on their operations. This state of affairs was remedied during the year, and the traders now understand that no extension of time will be granted unless on very special grounds.

208. As there were symptoms of the monsoon setting in earlier than usual, I went hurriedly through the reserves near the town of Mándvi after leaving the Dángs, and arrived at Surat on the 28th May. Till the 3rd of the following month I stayed in Surat to give back charge of his division to Mr. Wallinger and to confer with Mr. Lely, the Collector, principally on the subject of establishing a wood depôt in that city, as the inhabitants were bitterly

complaining of the high price at which wood was selling in the market owing to the monopoly enjoyed by middlemen, who bought up all the wood as it came in and put their own price on it.

209. Before settling down for the rains at Bándra, my head-quarters, on the 9th June and while the two camps, both office and private, were being conveyed by rail, I paid a flying visit to Godhra in the Panch Mahál and inspected the Divisional Forest Office, and had an interview with the Collector on forest matters in general.

210. The work performed by Mr. Millett, Divisional Forest Officer, West Thána, during the period of this report, both in and out of doors, cannot be commended too highly. For six months he was in charge of both the Thána Divisions, whose very onerous duties would have severely tried the patience of a less energetic and zealous officer. One important work he has carried through successfully during the year, notwithstanding that he had very little time to spare for special work of any kind, was the compilation of the rules and standing orders relating to the Thána District. Mr. Sinclair's approbation of his services are couched in the following terms :—

"The Collector has much pleasure in recording his experience of its" (referring to the abstract) "value; and his sense of the trouble taken with it and with all his work by Mr. Millett; the good sense and good temper which have made that officer's administration of his division (and during many months of the two divisions) the most successful ever known to the district."

211. Mr. Greatheed prior to his appointment to East Thána was comparatively new to the Konkan and, therefore, his time was fully occupied in actively moving about his charge and making himself acquainted with the forests of his division before the year closed. The Collector writes :—

"There has been no serious complaint from any one in the division, and on the whole I have good reason to be well satisfied with the year's work."

212. This was the first occasion in Mr. Wallinger's term of service that he had to conduct the duties of a Divisional Forest Officer solely on his own responsibility, and, therefore, it gives me much pleasure to record that his management of the Surat and Dángs forests was not only successful but very praiseworthy. Mr. Lely, the Collector, observes in his covering memorandum that

"he considers that much credit is due to Mr. Wallinger for the zeal and intelligence with which he had done his work."

And in transmitting the same the Political Agent, Khándesh, states :—

"I have not been in the Dángs yet, and therefore cannot, I am sorry to say, make any remarks worth having on that part of Mr. Wallinger's report that deals with them. I will ask Mr. Dodgson, the present Dáng Demarcation Officer, how it is that the position of the pillars does not correspond with their place in the maps. The objection to notifying the Dáng forests as reserved forests under the Act is, I imagine, that the Dángs are foreign territory and that the forests are not Government property. But there is not, I think, any reason why we should not treat the Dáng people as though the Act were in force there just as we treat them as though the Abkári Act were in force there. That people will not voluntarily serve in the Dángs for pay that would be enough for them elsewhere, is quite certain: and so I think the pay of Dáng servants should be improved. And I join with Mr. Lely in saying that, so far as I have seen, Mr. Wallinger deserves much credit for his zeal and intelligence."

213. Mr. Fisher was placed in charge of the Panch Mahál Division when he had been only a very short time in the presidency, and consequently he was ignorant of the language and the people of the district he was called on to administer. He has gained some experience since then, and promises to be an efficient controlling officer.

214. The very arduous duties of a Working Plans Officer have been conducted by Mr. Fry in this Circle with his usual care and devotion to duty.

215. As a body, the Sub-Division Officers have done their work fairly well. Mr. Rebeiro in West Thána and Mr. Chunilál Gulábchand Dalia deserve to be specially mentioned for having worked sensibly and conscientiously.

216. The services of the following subordinates have been recognized as approved in the several divisional reports :—

1. Shaik Abas Shaik Alli Potrik
2. Husan Alli Mahomed Alli.
3. Mancherji Byramji Merchant.
4. Shaik Ahmed Nur Mahomed.
5. Sadáshiv Pándurang Limaye.
6. Ganesh Rámchandra.
7. Shaik Usman Shaik Idrus.

217. The Divisional Offices have been working with reduced strength for a part of the year owing to the transfer temporarily of some of the clerks to the Circle Office, and all the controlling officers are unanimous in reporting that the extra work thrown on them in consequence has been cheerfully performed.

218. The clerks of my personal office have worked industriously under the able superintendence of Mr. Shiwarám Bhikáji Rangnekar, the Head Clerk.

219. The records and accounts of all the Divisional Forest Offices were examined during the year, and no serious mistakes were discovered.

220. The black list of the year is a fairly heavy one. One executive officer was dismissed and another degraded from ranger Rs. 60 grade to forester on Rs. 40. Both of them appealed to Government, who refused to interfere with the decision of the head of the Department. In addition to the above, the services of 30 forest guards were dispensed with.

221. The mortality amongst the subordinate staff was not so heavy as in the previous year, the figures of the latter being 20 against 11 in 1892-93. The health of the subordinate establishments was fairly good, notwithstanding that cholera prevailed in parts of Thána, Surat and the Panch Maháls.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.

Camp Bápsai, Thana District,
25th November 1893.

FORM No. 46.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Area of Reserved Forests, 1892-93.

Division or Range.	Civil District or Territory.	Name of Forest.	AREA ON 1ST APRIL 1892.		ADDED DURING THE YEAR.	EXCLUDED OR TRANSFERRED TO OTHER HEADS.	AREA ON 30TH JUNE 1893.		Number and date of Notification of addition or transfer.	REMARKS.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10	11
East Thána ...	Thána ...	.....	167,605	261·565	...	*233	167,372	261·332	Nos. 3915, 5th May 1892; 7670, 27th September 1892.	* Disforested for the Tánsa Lake.
West Thána ...	Thána ...	.....	259,610	405·410	...	...	259,610	405·410	.....	Táluka Wáda is included in this Division.
Surat ...	Surat ...	.....	43,673	68·153	229	...	43,902	68·382	No. 4751, 7th June 1892.	
Panch Maháls ..	Panch Maháls.	.....	126,396	197·316	13,895	*135	140,156	218·636	Nos. 6867, 27th August 1892; 8418, 26th October 1892; 8590, 2nd November 1892; 9571, 7th December 1892, 366, 13th January 1893; 1149, 9th February 1893; 6255, 3rd August 1892; 9756, 13th December 1892; 2004, 17th March 1893; 2579, 12th April 1893; 368, 13th January 1893.	* Rectification of 3 acres caused by the actual measurement of the area disforested (*vide* Commissioner, N.D.'s Vernacular No. 136, dated 5th November 1890.
		Total ...	597,284	933·164	14,124	368	611,040	954·480		

Camp Dahisar, Thána District,
14th November 1893.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.

FORM No. 46 A.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Area of Protected Forests, 1892-93.

Division or Range.	Civil District or Territory.	Name of Forest.	AREA ON 1ST APRIL 1892.		ADDED DURING THE YEAR	EXCLUDED OR TRANSFERRED TO OTHER HEADS.	AREA ON 30TH JUNE 1893.		Number and date of Notification of addition or transfer.	REMARKS.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
1	2	3	4	5	6	7	8	9	10	11
East Thána ...	Thána ...	.....	209,692	327·412	...	*1,333	208,359	325·359	Nos. 8510, 29th October 1892; 678, 25th January 1893; 5886, 19th July 1892; 6578, 16th August 1892.	*Disforested for the Tánsa Lake. Táluka Wáda is included in this division.
West Thána ...	Thána ...	.....	175,334	273·614	...	...	175,334	273·614	.....	
Surat ...	Surat ...	.....	...	...	...	...	...	...	.....	
Panch Maháls .	Panch Mahálls.	.....	...	...	...	...	...	...	.....	
		Total ...	385,026	601·386	...	1,333	383,693	599·333	.....	

Camp Dahisar, Thána District,
14th November 1893.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.

FORM No. 47.

Forest Department, Bombay, Northern Circle.

Statement showing the Progress made in, and the Expenditure incurred on, Forest Settlements during 1892-93.

Name of Forest Division.	Name of Civil District or Territory.	Area already settled at commencement of the year.	Areas finally settled during the year.						Areas undergoing Settlement.						Remarks.
			Number and date of Government order according final sanction to the settlement.	Name of Forest settled.	Area in square miles.	Expenditure incurred during the year on areas finally settled.		Entire cost per square mile of areas finally settled during the year.	At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing settlement.		
						In Forest accounts.	In other accounts.		Name of tract.	Area in square miles.	Name of tract.	Area in square miles.	In Forest accounts.	In other accounts.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		Sq. m.				Rs. a. p.	Rs.	Rs. a. p.					Rs.	Rs.	
East Thána	Thána	208	No. 3915, dated 5th May 1892. No. 7670, dated 27th September 1892. No. 8510, dated 29th October 1892. No. 678, dated 25th January 1893. No. 5886, dated 19th July 1892. No. 6578, dated 16th August 1892.	Disforestment of certain Reserved and Protected Forests in Sháhápur Táluka.	2¼	.....	...	...	Sháhápur and Murbád.	376¼	Murbád ...	141	1,459	3,160	
West Thána... ...	Thána	228	.....	.....	.....	.....	...	...	Dáhánu, Máhim ...	451	Máhim	199	4,745	8,492	Wáda is included in West Thána.
Surat...	Surat	63·519	No. 4751, dated 7th June 1892.	Mándvi	229 acres.	.....	...	...	.....	...	.....	...	.....	.....	
Panch Mahála ...	Panch Mahála ...	198	No. 6867, dated 27th August 1892. No. 8510, dated 2nd November 1892.	Kálol	22	71 6 6	...	3 4 0	Dohad, Jhálod ...	115	.....	...	*435	.....	*This amount is on account of compensation paid for occupied lands situated within forest limits in Dohad Táluka.
	Tota ...	697·519			24¼	71 6 6	...	3 4 0		942¾		340	6,639	11,652	

Camp Dahisar, Thána District,
14th November 1893.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.

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FORM No. 48.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Record of Demarcation and Maintenance of Boundaries during 1892-93.

No.	Division.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries not demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure of Demarcation during the year.		Remarks.
									On new works.	On repairs.	
		Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs. a. p.	Rs. a. p.	
1	East Thána	57	154	134	345	151	3	499	346 3 0	34 9 9	
2	West Thána	70	30	357	387	604	170	1,161	525 10 0	185 0 0	
3	Surat*	421	...	115	536	224	76	836	4,249 5 4	.....	*Surat includes the Dángs.
4	Panch Maháls	77½	324⅛	4⅜	405 9/10	267⅛	79	752 1/15	406 2 0	.....	
	Total ...	625½	508⅛	610⅜	1,673 9/10	1,246⅛	328	3,248 1/15	5,527 4 4	219 9 9	

Camp Dahisar, Thána Districts,
14th November 1893.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.

FORM No. 49.

FOREST DEPARTMENT No. 17 PARTY (BOMBAY FORESTS).

Statement of Forest Areas Surveyed and under Survey during the year 1892-93.

IN THE NORTHERN CIRCLE.

Division.	Areas Surveyed and under Survey during the year.																						Areas remaining to be taken under Survey.	Total Forest Area at end of the year as per Form No. 46.	COST.			Remarks.
	Special Surveys—Maps on 4" scale or over, by Survey of India Department or Forest Survey Branch.								*Ordinary, included in District Surveys.*								*Chain and compass or other surveys by local officers.*											
	WITH INTERIOR DETAILS.					BOUNDARY SURVEYS.			WITH INTERIOR DETAILS.					BOUNDARY SURVEYS.			WITH INTERIOR DETAILS.					BOUNDARY SURVEYS.								
	With details of growing stock.		Without details of growing stock.		Total Cost.	Previous.	Of the year.	Total Cost.	With details of growing stock.		Without details of growing stock.		Total Cost.	Previous.	Of the year.	Total Cost.	4-inch or over.		Under 4-inch.		Total Cost.	Previous.	Of the year.	Total Cost.			Previous.	Of the year.	Entire cost of all Surveys to end of the year.	
	Previous.	Of the year.	Previous.	Of the year.					Previous.	Of the year.	Previous.	Of the year.					Previous.	Of the year.	Previous.	Of the year.									
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	23	23	24	25	26	27	28	29	30	31.
				Sq. m.	Rs. a. p.																									
WEST THA'NA 8".																														
Triangulation ...	...	...	...	165	2,559 7 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Traversing	...	...	...	10	154 15 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Detail...	...	...	...	45	7,060 0 5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
EAST THA'NA 8".																														
Detail...	...	...	...	15	2,339 7 6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Total ...	...	...	...	...	12,113 15 3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	From 1st October 1892 to 30th September 1893.

Camp Dahisar, Thána District,
14th November 1893.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.

FORM No. 50.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Progress made in Working Plans; 1892-93.

Division.	Areas for which Working Plans have been completed.		Areas for which Working Plans are being compiled.		Areas for which Working Plans have still to be taken in hand.	Total Forest Area, as in Form No. 46.	Entire Cost, per square mile, of Working Plans completed.	Remarks.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.				
1	2	3	4	5	6	7	8	9
		Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	
East Thána...	...	72	...	113	345	530*	8,857†	*These figures represent area of forests as scaled, and, therefore, they will not compare with figures in Form No. 46.
West Thána	...	...	92	...	345	437*		†The Divisional Forest Officer Working Plans and his establishment were for the most part of the year employed in the Thána District. As the charges are debited in lump, separate figures for each division are not available.
Surat	...	...	...	...	68·382	68·382	.....	
Panch Mahâls	...	...	...	...	218·633	218·633	.....	
Total ...	...	72	92	113	977·375	1,254·375	8,857	

Camp Dahisar, Thána District,
14th November 1893.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.

FORM No. 51.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Communications and Buildings during 1892-93.

Division.	NEW WORK UNDERTAKEN DURING THE YEAR.						REPAIRS EXECUTED DURING THE YEAR.					
	Buildings.		Roads and Paths.			Total Expenditure on new work.	Buildings.		Roads and Paths.			Total Expenditure on Repairs.
	Description of Building.	Expenditure incurred.	Road or Path and object of the same.	Length of Road or Path.	Expenditure incurred.		Nature of Repairs.	Expenditure incurred.	Nature of Repairs.	Length repaired.	Expenditure incurred.	
1	2	3	4	5	6	7	8	9	10	11	12	13
		Rs.		Miles.	Rs	Rs.		Rs.		Miles.	Rs.	Rs.
East Thána.	Kalyán Range— 4 Cattle-pounds ...	74	.....	...	...	74	For thatching, &c., 21 Forest guards' huts ...	62	.....	...	...	62
	Shahápur Range— 2 Cattle-pounds ...	41	.....	...	...	41	For thatching, &c., 24 Forest guards' huts ...	110				
	Sháhápur Range— 1 Forest depôt at Wásind	231	.....	...	...	231	For plastering, white-washing &c., forest bungalow at Tánsa	145	.....	...	...	255
	Murbád Range— 3 Cattle-pounds ...	48	.....	...	...	48						
	2 Forest guards' huts.	20	.....	...	...	20	For thatching, &c., 32 Forest guards' huts ...	101	.....	...	...	101
	Khardi Range— 3 Cattle-pounds ...	47	Projecting a road from Dápur to Kochála to facilitate removal of timber from the outlying forests.	3	11	102						
	1 Forest depôt at Kasára	34					For thatching, &c., 24 Forest guards' huts ...	95	.....	...	...	95
	1 Forest guard's hut.	10										
	Bhiwndi Range— 4 Cattle-pounds ...	81	.....	...	...	81	For thatching, &c., 7 Forest guards' huts ...	53	.....	...	...	53
	Mokhada Range— 2 Hirda depôts ...	...	.....	...	...	...						
	(1) Suryámal ...	30	.....	...	...	30	For thatching, &c., 8 Forest guards' huts ...	26	.....	...	...	26
	(1) Kinisto											
West Thána.	Salsette Range— 1 Cattle-pound ...	25	.....	...	...	25	For thatching 3 Forest huts	8	.....	...	...	8
							For thatching 19 Forest posts	48	.....	...	...	48
	Bassein Range— 1 Forest guard's hut.	10	.....	...	...	10	For repairing Mándvi bungalow	15	.....	...	...	15
							Weather shutters, &c., to Parol bungalow and outhouses	27	.....	...	...	27
	Máhim Range— 1 Forest guard's hut.	10	.....	...	...	10	Preparing side walls, &c., of 6 forest posts	30	.....	...	...	30
	4 Cattle-pounds ...	185	.....	...	...	185	Erecting side walls of karvi to Mánikpur Depôt ...	8	.....	...	...	8
	Dahanu Range— 1 Cattle-pound ...	20	.....	...	...	20	For thatching 19 Forest guards' huts	47	.....	...	...	47
							For thatching 20 Forest huts	52	.....	...	...	52
	Umbargaon Range— 1 Cattle-pound ...	25	.....	...	...	25	For thatching 22 Forest huts	55	.....	...	...	55
							For thatching 35 huts ...	87	.....	...	...	87
	Wáda Range— 4 Cattle-pounds ...	104	.....	...	...	104	For preparing sites, erecting side walls, &c., for 11 Forest posts...	44	.....	...	...	44
Surat.	Dang Range— Meheskatri bungalow (partly constructed).	1,013	Opened out a new road from Devriawan to Kasarbari for timber transit	8	525		For white-washing and other repairs to side bamboo walls of Waghai and Pimpri bungalows ...	52	Road repairs from Wághai to Dhurabhari.	45	193	
							For turning tiles of the above bungalows	11	Road repairs from Pimpri to Sárowar ...	15	51	
	Sarowar bungalow (partly constructed).	231	.....	...	...		For turning tiles and repairs to side walls, &c., of Dhadarváda bungalow ...	45	Road repairs from Wághai to Maheskatri.	14	34	
							For turning tiles and repairs to side walls, &c., of Mándvi and Tárápur bungalows ...	12	Bridge and road repairs from Wághai to Pimpri.	9	72	
	Wooden curb well at Mahála	10	.....	...	...		Repairs to Mándvi post ...	3	Repairs to road from Vareli to Gawachi to the river Tápti for the carriage of felled timber	4	5	522
	Mándvi Range	...	.....	...	...	1,931	Do. to Pipalwáda post.	1	Repairs to road from Bhatkhai to river fords.	4	12	
							Do. to Vejalpur bungalow	15	.....	...	...	
	Bulsár Range— 1 Well at Teethal ...	100	.....	...	...		Turning tiles of Range Forest Officer's bungalow and erection of Wagrech depôt shed	15	.....	...	...	
	Chikhli Range— 1 Post at Dalwada ...	53	.....	...	...		Repairs to Dalwáda post ...	1	.....	...	...	
							Godhra Range— For turning tiles and white-washing &c., of the Divisional Forest Officer's bungalow at Godhra ...	42	.....	...	...	93
Panch Mahals.	Halol Range— 2 Forest posts at Champáner ...	20	.....	...	...	20	For thatching and repairing 8 Forest posts	51	.....	...	...	
	Grand Total ...	2,421	.....	11	536	2,957	.....	1,261	.....	91	367	1,628

Camp Dahisar, Thána District,
14th November 1893.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.

B 827—12 NC

FORM No. 52.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Prosecutions for Breaches of Forest Rules during 1892-93.

Forest Division and Civil District.		Cases pending from 1891-92.	NEW CASES OF THE YEAR.					Total cases.	DISPOSED OF DURING THE YEAR.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases	Persons.	
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15
East Thána...	A.	17	7	125	2	2	136	153	67	152	43	158	110	310	43
	B.	...	...	173	...	...	173	173	173	358	...	...	173	358	...
	C.	...	152	270	...	...	422	422	...	...	...	...	...	...	...
	Total ...	17	159	568	2	2	731	748	240	510	43	158	283	668	43
West Thána ...	A.	9	2	97	5	8	112	121	91	218	17	47	108	265	12
	B.	...	3	115	3	1	122	122	122	272	...	...	122	272	...
	C.	...	177	128	...	29	334	334	...	...	...	...	...	...	...
	Total ...	9	182	340	8	38	568	577	213	490	17	47	230	537	12
Surat	A.	...	...	2	...	1	3	3	3	4	...	...	3	4	...
	B.	...	...	13	2	2	17	17	17	17	...	...	17	17	...
	C.	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	...	...	15	2	3	20	20	20	21	...	...	20	21	...
Panch Mahals ...	A.	2	...	11	1	...	12	14	11	33	2	8	13	41	1
	B.	...	1	100	4	2	107	107	107	132	...	...	107	132	...
	C.	...	...	26	...	...	26	26	...	...	...	...	...	...	...
	Total ...	2	1	137	5	2	145	147	118	165	2	8	120	173	1
							Abstract of the above totals.								
	A.	28	9	235	8	11	263	291	172	407	62	213	234	620	57
	B.	...	4	401	9	5	419	419	419	779	...	...	419	779	...
	C.	...	329	424	...	29	782	782	...	...	...	...	...	...	...
Grand Total ...		28	342	1,060	17	45	1,464	1,492	591	1,186	62	213	653	1,399	57

Camp Dahisar, Thána District,
14th November 1893.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.

FORM No. 53.

Forest Department, Bombay, Northern Circle.

Area of Forest Tracts protected from Fire during 1892-93.

Division.	Forest Tracts.	Year in which protection commenced.	Area protected during 1891-92.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	Remarks.
1	2	3	4	5	6	7	8	9
			Acres.	Acres.	Acres.	Acres.	Rs.	
East Thána ...	Sháhápur	1878-79.	52,153	152,632	10,976	141,656	406	
	Khardi		45,428	49,423	592	48,831	99	
	Mokháda		22,886	35,473	522	34,951	235	
	Kalyán		89,319	90,288	1,114	89,174	211	
	Murbád		46,884	47,914	2,611	45,303	171	
	Bhiwndi							
	Total ...		256,670	375,730	15,815	359,915	1,122	
West Thána ...	Sálsette	1878-79.	15,328	15,629	492	15,137	139	
	Bassein		53,235	54,618	1,298	53,320	258	
	Máhim		124,083	127,345	1,991	125,354	1,180	
	Dáhánu		158,679	161,127	1,431	159,446	287	
	Umbargaon				250		159	
	Váda		76,226	76,226	2,700	73,526	407	
	Total ...		427,551	434,945	8,162	426,783	2,430	
Surat	Dángs	1878-79.	2,000	434,240	432,240	2,000	63	
	Mándvi		40,739	41,068	2,750	38,318	39	
	Bulsár		961	985	...	985	2	
	Párdi		564	573	...	573	...	
	Chikhli		811	825	...	825	2	
	Bárdoli		450	450	...	450	...	
	Total ...		45,525	478,141	434,990	43,151	106	
Panch Mahás ...	Godhra	1878-79.	81,543	89,407	1,475	87,932	4	
	Kálol		20,828	22,262	1,236	21,026	7	
	Halol		26,602	28,496	750	27,746	...	
	Dohad		45,388	46,538	263	46,275	14	Forest area in Dohad and Jhálod táluks is not included in Form No. 46.
	Jhálod		26,717	26,872	220	26,652	...	
	Total ...		201,078	213,575	3,944	209,631	25	
	Grand Total ...		930,824	1,502,391	462,911	1,039,480	3,683	

Camp Dahisar, Thána District,
14th November 1893.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.

FORM No. 54.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Area closed and open to Grazing during 1892-93.

Division.	AREA IN SQUARE MILES.					Total Area.	REMARKS.
	CLOSED TO ALL ANIMALS.		CLOSED TO BROWSERS (CAMELS, GOATS OR SHEEP).		OPEN TO ALL ANIMALS.		
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.		
1	2	3	4	5	6	7	8
East Thána.							Area open to all animals except browsers is shown below.
Sháhápur	10	...	238	...	...	238	228
Khardi							
Mokhádá	4	...	77	...	...	77	73
Murbád	5	...	141	...	...	141	136
Kalyán	7	...	55	...	...	55	48
Bhiwndi	5	...	75	...	...	75	70
Total ...	31	...	586	...	...	586	555
West Thána.							
Sálsette	9	...	24	...	...	24	15
Bassein	11	...	84	...	...	84	73
Máhim	18	...	199	...	...	199	181
Dáhánu	22	...	175	...	...	175	153
Umbargaon	4	...	77	...	...	77	73
Váda	9	...	119	...	...	119	110
Total ...	73	...	678	...	...	678	605
Surat.							
Dángs	...	...	...	...	678	678	
Mándvi	27	37	64	...	...	64	
Bulsár	½	1¾	2¼	...	...	2¼	
Chikhli	½	1½	2	...	...	2	
Total ...	28	40¼	68¼	...	678	746¼	
Panch Maháls.							
Godhra	49	91	140	...	...	140	
Kálol	11	23	34	...	...	34	
Hálol	16	28	44	...	...	44	
Dohad	24	49	73	...	...	73	
Jhálod	12	29	41	...	...	41	
Total ...	112	220	332	...	...	332	
Grand Total ...	244	260¼	1,664¼	...	678	2,342¼	1,160

Camp Dahisar, Thána District,
14th November 1893.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.

FORM No. 55.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Return of Grazing in the State Forests during 1892-93.

Division.	GRAZING ON PAYMENT—NUMBER OF ANIMALS.													GRAZING FREE—NUMBER OF ANIMALS.											Grand total of value at full rates.
	AT FULL RATES.						AT PRIVILEGED RATES.							BY RIGHT UNDER SETTLEMENT.						DURING PLEASURE OF GOVERNMENT, OR OTHERWISE THAN UNDER SETTLEMENT.							
	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Fees received.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Fees received. Actual.	Fees received. Value at full rates.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Value of Fees at full rates.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Value of Fees at full rates.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
						Rs. a. p.						Rs. a. p.	Rs. a. p.						Rs. a. p.							Rs. a. p.	Rs. a. p.
East Thána ...	94	3,980	...	...	...	2,605 10 0	249	4,126	...	...	56	1,076 14 0	2,924 0 0	23,532	66,133	...	...	16,445	80,967 6 0	...	...	...	...	...	...	80,967 6 0	86,497 0 0
West Thána ...	19	1,885	...	...	...	1,201 14 0	314	923	...	...	...	275 6 0	969 6 0	20,767	90,135	10,573	...	...	83,296 0 0	...	...	...	...	...	...	83,296 0 0	85,467 4 0
Surat	528	2,598	...	...	...	848 0 0	...	9	...	...	...	...	5 0 0	95	1,352	...	...	...	441 8 0	...	...	...	...	...	...	441 8 0	1,294 8 0
Panch Mahálá ...	2,947	12,787	...	...	...	4,306 9 6	...	...	...	...	...	...	...	...	47,000	...	...	...	13,200 0 0	...	...	...	...	...	...	13,200 0 0	17,506 9 6
Total ...	3,588	21,250	...	...	...	8,962 1 6	563	5,058	...	...	56	1,352 4 0	3,898 6 0	44,394	204,670	10,573	...	16,445	1,77,904 14 0	...	...	...	...	...	...	1,77,904 14 0	1,90,765 5 6

Camp Dahisar, Thána District,
14th November 1893.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.

FORM No. 56.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Area of Plantations, 1892-93.

Division.	Name of Plantation.	Area in Acres.				Receipts	Charges	Remarks.
		On 1st April 1892.	Add during the year.	Excluded during the year.	Area on 30th June 1893.	Of the year.		
1	2	3	4	5	6	7	8	9
	Regular Plantations.							
East Thána ...	Bhiwandi	185	39	...	224	...	116	
	Mokháda	62	23	...	85	...	...	
	Sháhápur	84	36	...	120	...	249	
	Khardi	24	20	...	44	...	...	
	Kalyán	73	15	...	88	...	30	
	Múrbád	16	15	...	31	...	28	
	Total ...	444	148	...	592	...	423	
West Thána ...	Salsette	117	13	...	130	...	42	
	Bassein	2	...	..	2	...	...	
	Máhim	1,880	...	...	1,880	...	...	
	Dáhánu	4	...	...	4	...	26	
	Umbargaon	130	...	...	130	...	55	
	Wáda	92	...	...	92	...	20	
	Total ..	2,225	13	...	2,238	...	143	
Surat	.....	...	...	...	...	...	...	
Panch Maháls ...	Kálol...	222	277	...	499	98	241	
	Halol...	14	...	...	14	...	...	
	Total ...	236	277	...	513	98	241	
	Total Regular Plantations .	2,905	438	...	3,343	98	807	
	Cultural Operations.							
East Thána ...	Bhiwandi	773	71	...	844	...	...	
	Sháhápur	770	170	...	940	...	...	
	Khardi	435	99	...	534	...	...	
	Mokháda	354	329	...	683	...	...	
	Kalyán	1,313	42	...	1,355	...	...	
	Múrbád	761	12	...	773	...	...	
	Total ...	4,406	723	...	5,129	...	...	
West Thána ...	Sálsette	688	101	...	789	...	56	
	Bassein	4,271	1,132	...	5,403	...	54	
	Máhim	6,464	90	...	6,554	...	130	
	Dáhánu	6,435	72	...	6,507	...	85	
	Umbargaon	2,294	17	...	2,311	...	97	
	Wáda	2,912	36	...	2,948	...	52	
	Total ...	23,064	1,448	...	24,512	...	474	
Surat	Dángs	...	7	...	7	...	...	
	Mándvi	788	18	...	806	...	70	
	Bulsár	186	48	...	234	...	362	
	Chikhli	203	29	...	232	...	15	
	Párdi...	94	7	...	101	...	19	
	Total ...	1,271	109	...	1,380	...	466	
Panch Maháls ...	Godhra	328	61	...	389	...	...	
	Kálol...	58	16	...	74	...	...	
	Halol...	87	22	...	109	...	...	
	Dohad	87	22	...	109	...	...	
	Jhálod	49	12	...	61	...	...	
	Total ...	609	133	...	742	...	...	
	Total Cultural Operations .	29,350	2,413	...	31,763	...	940	
	Add—Total Regular Plantations	2,905	438	...	3,343	98	807	
	Grand Total ...	32,255	2,851	...	35,106	98	1,747	

Camp Dahisar, Thána District,
14th November 1893.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.

B 827—13 NC

FORM No. 57.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Outturn (in Cubic Feet, solid) of Timber and Fuel during the year 1892-93 and Agency of Exploitation.

Division.	Timber in the rough; Logs.					Timber in the rough; Poles.					Sawn or Squared Timber.					Miscellaneous.					Fuel.					Total Outturn.
	Government.	Purchasers.	Free Grantees.	Right-holders.	Total.	Government.	Purchasers.	Free Grantees.	Right-holders.	Total.	Government.	Purchasers.	Free Grantees.	Right-holders.	Total.	Government.	Purchasers.	Free Grantees.	Right-holders.	Total.	Government.	Purchasers.	Free Grantees.	Right-holders.	Total.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	C. ft.	C. ft	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
East Thána ...	...	188,960	...	...	188,960	32,550	458,825	1,761	...	493,136	...	...	...	...	...	...	Timber 163,707 Bamboos No. 288,673 Cart-loads ...1,086 Head-loads ...6,386	...	...	Timber 163,707 Bamboos No. 288,673 Cart-loads ...1,086 Head ,, ...6,386	20,376	722,874	...	...	743,250	Timber & firewood 1,589,053 Bamboos No. 288,673 Cart-loads ...1,086 Head ,, ...6,386
West Thána ...	...	...	...	...	...	1,345	1,835,775	270	...	1,837,290	...	...	...	...	...	...	Bamboos No. 2,027,223 Cart-loads ...8,655 Head-loads ...5,525	...	...	Bamboos No. 2,027,223 Cart-loads ...8,655 Head ,, ...5,525	4,714	2,954,850	...	...	2,959,564	Timber & firewood 4,796,854 Bamboos No. 2,027,223 Cart-loads ...8,655 Head ,, ...5,525
Surat	77,685	59,442	1,300	...	138,427	...	9,248	...	...	9,248	...	...	...	...	...	Bamboos. No. 2,381	Bamboos No. 1,094,232 Gánjas ... 2,859 Paranas ...37,500 Pipes ... 1,564	...	...	Bamboos No. 1,096,613 Gánjas ... 2,859 Paranas ...37,500 Pipes ... 1,564	...	30,793	...	...	30,793	Timber & firewood 178,468 Bamboos No. 1,096,613 Gánjas ... 2,859 Paranas ...37,500 Pipes ... 1,564
Panch Mahâls ...	428	70,969	1,080	...	72,477	935	136,074	1,080	...	138,089	...	16	...	...	16	Timber. 2,707	Timber 1,025 Bamboos No. 217,272 Cart-loads ...193	...	...	Timber 3,732 Bamboos No. 217,272 Cart-loads ...193	10,700	242,281	...	...	252,981	Timber & firewood 467,295 Bamboos No. 217,272 Cart-loads ...193
Total ...	78,113	319,371	2,380	...	399,864	34,730	2,439,922	3,111	...	2,477,763	...	16	...	...	16	Timber 2,707 Bamboos No. 2,381	Timber 164,732 Bamboos No. 3,627,400 Cart-loads ... 9,934 Head ,, ...11,911 Gánjas ... 2,859 Paranas ...37,500 Pipes ... 1,564	...	...	Timber 167,439 Bamboos No. 3,629,781 Cart-loads ... 9,934 Head ,, ...11,911 Gánjas ... 2,859 Paranas ...37,500 Pipes ... 1,564	35,790	3,950,798	...	...	3,986,588	Timber & firewood 7,031,670 Bamboos No. 3,629,781 Cart-loads ... 9,934 Head ,, ...11,911 Gánjas ... 2,859 Paranas ...37,500 Pipes ... 1,564

Camp Dahisar, Thána District,
14th November 1893.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.

FORM No. 58.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Outturn of Minor Forest Produce.

Division.	Description of Produce.	PRODUCE REMOVED OR UTILIZED.									
		Bombay Government Agency.		By Purchasers.		By Free Grants.		By Right-holders.		Total.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9	10	11	12
			Rs.		Rs.		Rs.		Rs.		Rs.
East Thána.	Myrobolams .. .. Khandis.	30 13 12	644	....	..	..	..	..	..	30 13 12	644
	Karvi .. .. .. Cart-loads	....	....	1,996	467	..	..	..	..	1,996	467
	Do. .. .. ..Head-loads.	....	....	1,751	49	..	..	..	..	1,751	49
	Mango fruits	....	....	1,000	5	..	..	..	..	1,000	5
	Thorns .. .. .. Cart-loads.	....	....	144	100	..	..	..	..	144	100
	Stones .. .. .. Do.	....	....	15	2	..	..	..	..	15	2
	Dead palm trees	....	....	7	5	..	..	..	..	7	5
	Miscellaneous	....	....	....	27	..	..	..	..	....	27
	Total ..	30 13 12	644	....	655	..	..	..	..	.....	1,299
West Thána.	Myrobolams .. .. Khandis.	9 11 0	263	....	..	..	..	..	..	9 11 0	263
	Karvi .. .. .. Cart-loads.	....	....	....	640	..	..	..	..	....	640
	Stones and limestones	....	....	....	8	..	..	..	..	....	8
	Brab-tree leaves	....	....	....	1,435	..	..	..	..	....	1,435
	Grass for ash manure	....	....	....	194	..	..	..	..	....	194
	Miscellaneous	....	....	.....	198	..	..	..	..	....	198
	Total ..	9 11 0	263	....	2,475	..	..	..	..	9 11 0	2,738
Surat.	Timru leaves .. .. Cart-loads.	....	....	6	15	..	..	..	..	6	15
	Ashindra leaves .. Bundles.	....	....	25,71,975	362	..	..	..	..	25,71,975	362
	Honey .. .. .. Seers.	....	....	1,728	18	..	..	..	..	1,728	18
	Wax .. .. .. Do.	....	....	83	1	..	..	..	..	83	1
	Mowra flowers and Seeds .. .. .. Maunds.	....	....	1,728	254	..	..	..	..	1,728	254
	Karanj seeds .. .. Do.	....	....	174	11	..	..	..	..	174	11
	Reeds and Chhaj grass	....	....	1,170	304	..	..	..	..	1,170	304
	Date palm-trees	....	....	235	70	..	..	..	..	235	70
	Rosha oil stills	....	....	10	178	..	..	..	..	10	178
	Different kinds of bamboo articles.	....	....	15,926	536	..	..	..	..	15,926	536
	Miscellaneous	....	....	....	354	..	..	..	..	....	354
	Total ..	....	....	....	2,103	..	..	..	..	....	2,103
Panch Mahals.	Mowra flowers..	....	....	....	2,887	..	..	..	..	....	2,287
	Thorns .. .. .. Cart-loads.	....	....	86	26	..	..	..	..	86	26
	Sand .. .. .. Do.	....	....	20	11	..	..	..	..	20	11
	Earth .. .. .. C. yards.	....	....	72	5	..	..	..	..	72	5
	Sali bark .. .. Head-loads.	....	....	71	25	..	..	..	..	71	25
	Miscellaneous	....	....	....	17	..	..	..	..	....	17
	Total ..	....	....	....	2,371	..	..	..	..	....	2,371
	Grand Total ..	39 24 12	907	....	7,604	..	..	..	..	9 11 0	8,511

Camp Dahisar, Thána District,
14th November 1893.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.

FORM No. 59.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1892-93.

Particulars.	Number or Quantity.	Cubic feet.	Total of each Head. Number or Quantity.	Total of each Head. Cubic feet.	Particulars.	Number or Quantity.	Cubic feet.	Total of each Head. Number or Quantity.	Total of each Head. Cubic feet.
					TIMBER.				
Balance at the commencement of the year.									
					Sold locally.				
East Thána ... Timber pieces (mixed) ...	2,009	6,027	2,009	6,027	Teak pieces, including beams, logs, &c.	16,902	91,898		
West Thána ... Teak pieces, Jungle wood pieces ...	1,172	3,516	...	.....	Teak rafters and poles	30,170	44,720		
	273	819	1,445	4,335	Mixed teak pieces	12,859	38,577		
					Junglewood pieces and rafters ...	1,093	1,066		
Surat ... ... Teak logs and rafters...	5,503	9,206	...	.....	Timber piece, of haladwan ...	1	15		
Do. pieces ...	2,674	39,516	...	.....	Timber pieces of khair	78	146		
Do. beams ...	1,778	6,223	...	.....				61,112	1,27,022
Jungle wood pieces ...	330	990	10,295	56,025	*Balance at the close of the year.*				
					West Thána.				
Panch Mahâls ... Teak logs and rafters...	27	880	...	.....	Teak pieces	310	930		
Do. pieces ...	12	76	39	956	Junglewood pieces	138	414		
								448	1,344
Total, Balance ...	...	.....	13,778	67,343	*Surat.*				
					Teak pieces	513	643		
					Junglewood pieces and rafters ...	182	546		
					Timber pieces of kilai	11	278		
Received from Forests in Depôt.					,, bondáro	11	292		
					,, sádado	46	737		
Teak piece,s including beams, logs, &c.	12,571	44,380			,, kánti	16	322		
Teak rafters and poles	26,079	34,964			,, beo	15	298		
Mixed teak pieces...	10,850	32,550			,, khair	3	34		
Junglewood pieces and rafters...	946	977			,, sissum	1	17		
Timber pieces of kilai	11	278			,, haladwan ...	20	510		
Do. haladwán ...	21	555						818	3,707
Do. bondáro ...	11	292			*Panch Mahâls.*				
Do. sádado ...	46	737			Teak pieces	482	240		
Do. kánti	16	322			Do. rafters	1,430	420		
Do. beo	15	298			Junglewood pieces	136	160	2,048	820
Do. khair	81	180							
Do. sissum	1	17							
			50,648	1,15,550	Total Balance ...	...	.....	3,314	5,871
Total Timber ...	...	.....	64,426	1,82,893	Total Timber ...	...	.....	64,426	1,82,893
					FIREWOOD.				
Balance in hand at the commencement of the year.						Kh.		Kh.	
East Thána	2	25	2	25	Sold locally during the year ...	5,864	76,650	5,864	76,650
West Thána	3,667	45,837	3,667	45,837	Firewood pieces	105	452	105	452
Total Balance ...	...	.....	3,669	45,862	Balance at the close of the year ...	180	2,250		
					West Thána.				
Received during the year.	Kh.		Kh.		Panch Mahâls	92	2,300	272	4,550
East Thána	1,638	20,376	1,638	20,376					
West Thána	341	4,263	341	4,263					
Firewood pieces, &c.	105	452	105	452					
Panch Mahâls	428	10,700	428	10,700					
Total Firewood, Khandis ...	...	.....	6,136	80,200	Total Firewood, Khandis ...	...	.....	6,136	81,200
Do. Pieces ...	...	.....	105	452	Do. Pieces ...	...	.....	105	452
					BAMBOOS.				
Balance at commencement of the year.						No.		No.	
Received during the year.	No.		No.		Sold locally	2,400	.....	2,400	.....
Surat...	3,000	.....	3,000	.....	Balance at close of the year ...	...	.....	600	.....
Total, Bamboos ...	...	.....	3,000	.....	Total Bamboos ...	...	.....	3,000	.....
					HIRDA'S.				
Balance at commencement of the year.	Kh. m. s.		Kh. m. s.			Kh. m. s.		Kh. m. s.	
East Thána	8 7 6	.....	8 7 6	.....	Sold during the year	39 24 12	.....	39 24 12	.....
Received during the year.					Balance at close of the year ...	...	.....	.....	.....
East Thána	22 6 6	.....	.....	.....					
West Thána	9 11 0	.....	31 17 6	.....					
Total Hirdas ...	...	.....	39 24 12	.....	Total Hirdas ...	...	.....	39 24 12	.....
					SEEDS.				
Balance at commencement of the year.									
East Thána...	5 17 26	.....	.....	.....	Used up during the year	109 12 1	.....	109 12 1	.....
Panch Mahâls	12 24 2	.....	18 14 0	.....	Balance at close of the year ...	...	.....	.....	.....
Received during the year.					East Thána	44 24 22	.....	.....	.....
East Thána	129 17 20	.....	.....	.....	Panch Mahâls	7 3 5	.....	51 27 27	.....
Panch Mahâls	13 8 8	.....	142 26 0	.....					
Total Seeds ...	...	.....	161 12 0	.....	Total Seeds ...	...	.....	161 12 0	.....

Camp Dahisar, Thána District, 14th November 1893.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.

FORM No. 60.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Abstract showing the Value of Timber and other Produce at Sale Depôts for the year 1892-93.

Description of Timber and other Produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.		Remarks.
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.	
			Rs.			Rs.	Rs.	Rs.	
East Thána Division.									
Timber pieces... ...	2,009	6,027	265	...	...	...	...	...	
Firewood... Khandis	2	25	2	...	...	...	...	...	
	Kh. m. lbs.		...						
Hirda nuts	8 7 6	...	167	...	...	...	...	...	
				Kh. m. lbs.					
Miscellaneous seeds ...	5 17 26	...	...	44 24 22	...	...	...	...	
Total ...	...	...	434	...	...	...	...	434	
West Thána Division.									
Teak pieces	1,172	3,516	} 120	310	930	50	...	...	
Junglewood pieces ...	273	819		138	414	20	...	...	
Firewood... Khandis	3,667	45,837	1,800	180	2,250	80	...	...	
Total ...	...	...	1,920	...	...	150	...	1,770	
Surat Division....									
Teak pieces and rafters	8,177	48,812	40,001	513	643	125	...	...	
Teak beams	1,778	6,223	4,100	123	2,518	475	...	...	
Junglewood pieces ...	330	990	100	182	546	50	...	...	
Total ...	...	...	44,201	...	...	650	...	43,551	
Panch Mahâls Division.									
Teak pieces	39	956	5	482	240	} 100	...	...	
Teak rafters	...	...	...	1,430	420				
Junglewood pieces ...	...	...	...	136	90				
Firewood ... Khandis	...	...	...	92	2,300	87	...	...	
	Kh. m. lbs.			Kh. m. lbs.					
Miscellaneous seeds ...	12 24 2	...	...	7 3 5	...	...	...	...	
Total ...	...	...	5	...	...	187	182	...	
Grand Total ...	...	...	46,560	...	...	987	182	45,755	

Camp Dahisar, Thána District,
14th November 1893.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.

B 827—14 NC

FORM No. 60A.

Forest Department, Bombay, Northern Circle.

Abstract showing the Value of Live and Dead Stock for the year 1892-93.

Description of Live and Dead Stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in value.		Remarks.
	Number.	Value.	Number.	Value.	In favour of the year.	Against the year.	
		Rs.		Rs.	Rs.	Rs.	
Direction.							
Office tent	...	...	1	420	...	...	
Tools, plant and office furniture ...	...	...	...	280	...	...	
Total ...	...	...	...	700	700	...	
East Thána Division.							
Office tent	1	433	1	433	...	...	
Small rautis	2	186	2	186	...	...	
Great coats	201	1,309	201	1,309	...	...	
Tools, plant and office furniture ...	...	856	...	930	...	...	
Tánsa Forest bungalow ...	...	...	1	1,871	...	...	
Total ...	...	2,784	...	4,729	1,945	...	
West Thána Division.							
Párol bungalow	1	1,200	1	1,200	...	...	
Forest depôt house at Mándvi ...	1	250	1	250	...	...	
Do. at Mánikpur...	1	603	1	603	...	...	
Forest stations	38	570	38	570	...	...	
Do. posts	82	840	82	840	...	...	
Do. depôt house at Pálghar ...	...	...	1	1,083	...	...	
Do. at Manor ...	...	...	1	1,083	...	...	
Do. at Sawta ...	...	...	1	1,083	...	...	
Do. at Sanján ...	...	...	1	1,083	...	...	
Office tent	*1	273	...	...	...	...	
Do.	1	433	1	433	...	...	*Sold during the year.
Small rautis	2	188	2	188	...	...	
Great coats	226	1,359	226	1,359	...	...	
Tools, plant and office furniture ...	...	2,446	...	2,463	...	...	
Total ...	...	8,162	...	12,238	4,076	...	
Surat Division.							
Office tent	1	246	1	246	...	...	
Do.	1	433	1	433	...	...	
Andhátri bungalow	1	291	1	291	...	...	
Dhadawádá bungalow ...	1	80	1	80	...	...	
Tárápur do. ...	1	100	1	100	...	...	
Large bungalow at Waghai ...	1	} 1,099	1	} 1,099	...	...	
Small do. do. ...	1		1		...	...	
Carried over ...	...	2,249	...	2,249	...	...	

FORM No. 60A—*continued.*

Description of Live and Dead Stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in value.		Remarks.
	Number.	Value.	Number.	Value.	In favour of the year.	Against the year.	
		Rs.		Rs.	Rs.	Rs.	
Brought forward ...	7	2,249	7	2,249			
Surat Division—continued.							
Large bungalow at Pimpri ...	1	499	1	499	...	...	
Do. at Garvi ...	1	1,012	1	1,012	...	...	
Small do. do. ...	1	288	1	288	...	...	
Great coats	65	455	65	455	...	...	
Tools, plant and office furniture ...	...	1,837	...	1,837	...	...	
Total ...	...	6,340	...	6,340	...	...	
Panch Mahâls Division.							
Rest-houses and depôts ...	45	2,525	45	2,525	...	...	
Bungalow at Godhra	1	8,200	1	8,200	...	...	
Office tent	1	433	1	433	...	...	
Great coats	110	717	110	717	...	...	
Tools, plant and office furniture ...	...	1,324	...	1,324	...	...	
Total ...	...	13,199	...	13,199	...	...	
Working Plans.							
Office tent	1	285	1	285	...	...	
Tools, plant and office furniture ...	...	1,103	...	922	...	...	
Total ...	...	1,388	...	1,207	...	181	

Camp Dahisar, Thâna District,
14th November 1893.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.

FORM No. 61.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Summary of Revenue and Expenditure of the different Divisions during Forest year 1892-93 (from April 1892 to end of June 1893).

Budget Heads.	Direction.	East Thána.	West Thána.	Surat.	Panch Mahals.	Working Plans.	Bombay Forest Survey.	Total for the Forest year 1892-93.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—Timber and other Produce removed from the Forests by Government Agency—								
a. Timber	.....	3,118 3 0	820 10 6	60,858 14 0	1,094 10 0	.....	.....	65,892 5 6
b. Firewood and Charcoal	.....	4 6 6	1,787 15 0	.....	726 12 0	.....	.....	2,519 1 6
c. Bamboos	.....	.....	.....	164 9 10	.....	.....	.....	164 9 10
d. Sandalwood	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other Minor Produce	.....	643 10 10	263 0 0	.....	.....	.....	.....	906 10 10
Total I ...	.....	3,766 4 4	2,871 9 6	61,023 7 10	1,821 6 0	.....	.....	69,482 11 8
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—								
a. Timber	.....	98,829 1 6	2,66,828 3 3	55,176 0 9	71,272 11 1	.....	.....	4,92,106 0 7
b. Firewood and Charcoal	.....	2,406 2 0	9,226 0 4	751 9 0	4,421 0 0	.....	.....	16,804 11 4
c. Bamboos	.....	9,003 13 0	12,705 6 5	25,361 1 11	2,899 0 6	.....	.....	49,972 5 10
d. Grazing and Fodder Grass	.....	3,847 6 0	15,147 15 0	1,303 6 0	5,853 6 6	.....	.....	26,152 1 6
e. Other Minor Produce	.....	655 1 3	2,475 2 6	2,103 6 0	2,370 15 3	.....	.....	7,604 9 0
Total II. ...	.....	1,14,741 7 9	3,06,382 11 6	84,698 7 8	86,817 1 4	.....	.....	5,92,639 12 3
III.—Confiscated Drift and Waif Wood	.....	1,220 2 0	739 11 6	294 5 2	92 15 10	.....	.....	2,347 2 6
Total III. ...	.....	1,220 2 0	739 11 6	294 5 2	92 15 10	.....	.....	2,347 2 6
IV.—Revenue from Forests not managed by Government—								
a. Duty on Foreign Timber and other Forest Produce ...	.....	.....	.....	.....	.....	.....	.....	.....
b. Revenue from Shared and Private Forests ...	.....	762 1 1	639 8 4	170 0 9	.....	.....	.....	1,571 10 2
Total IV. ...	.....	762 1 1	639 8 4	170 0 9	.....	.....	.....	1,571 10 2
V.—Miscellaneous—								
a. Fines and Forfeitures	.....	3,670 0 8	1,688 1 9	250 0 0	215 4 1	.....	.....	5,823 6 6
b. Refunds	.....	554 7 6	190 5 10	72 3 0	1 8 0	.....	.....	818 8 4
c. Other sources	.....	2,853 11 10	5,091 9 11	1,008 7 10	1,202 4 8	.....	44 6 4	10,200 8 7
Total V. ...	.....	7,078 4 0	6,970 1 6	1,330 10 10	1,419 0 9	.....	44 6 4	16,842 7 5
Total Receipts ...	.....	1,27,568 3 2	3,17,603 10 4	1,47,517 0 3	90,150 7 11	.....	44 6 4	6,82,883 12 0

EXPENDITURE.

A.—Conservancy and Works.

I.—Timber and other Produce removed from the Forests by Government Agency.								
a. Timber	.....	890 12 8	178 15 6	6,550 4 6	123 9 0	.....	.....	7,743 9 8
b. Firewood and Charcoal...	.....	2 8 0	104 3 6	.....	.....	.....	.....	106 11 6
c. Bamboos	.....	.....	.....	91 12 9	.....	.....	.....	91 12 0
d. Sandalwood	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other Minor Produce	.....	163 11 3	91 7 0	.....	.....	.....	.....	255 2 3
Total A, I ...	.....	1,056 15 11	374 10 0	6,642 0 6	123 9 0	.....	.....	8,197 3 5
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers...	.....	3,529 0 7	8,470 11 6	3,625 10 10	1,034 10 11	.....	.....	16,660 1 10
Total A, II ...	.....	3,529 0 7	8,470 11 6	3,625 10 10	1,034 10 11	.....	.....	16,660 1 10
III.—Confiscated Drift and Waif Wood	.....	16 9 9	40 2 6	5 2 9	1 1 0	.....	.....	63 0 0
Total A, III ...	.....	16 9 9	40 2 6	5 2 9	1 1 0	.....	.....	63 0 0
IV.—Revenue from Forests not managed by Government.								
a. Duty on Foreign Timber and other Forest Produce ...	.....	.....	.....	.....	.....	.....	.....	.....
b. Revenue from Shared and Private Forests	.....	.....	.....	.....	.....	.....	.....	.....
Total A, IV ...	.....	.....	.....	.....	.....	.....	.....	.....
V.—Rent of leased Forests and payments to Shareholders in Forests managed by Government...	.....	746 10 7	.....	19,550 3 6	3,065 14 5	.....	.....	23,362 12 6
Total A, V ...	.....	746 10 7	.....	19,550 3 6	3,065 14 5	.....	...	23,362 12 6
VI.—Live Stock, Stores, Tools and Plant.								
a. Purchase of Cattle	.....	.....	.....	.....	.....	.....	.....	.....
b. Feed and Keep of Cattle	.....	53 12 0	.....	.....	.....	.....	.....	53 12 0
c, Stores, Tools and Plant	713 7 0	204 15 6	82 8 6	310 11 6	2 6 0	22 0 0	.....	1,336 0 6
Total A, VI ...	713 7 0	258 11 6	82 8 6	310 11 6	2 6 0	22 0 0	.....	1,389 12 6
VII.—Communications and Buildings.								
a. Roads and Bridges	.....	11 2 0	.....	874 1 7	.....	.....	.....	885 3 7
b. Buildings	.....	919 5 6	866 9 8	1,481 15 3	112 8 0	.....	.....	3,380 6 5
c. Other Works	.....	276 5 6	.....	109 3 0	.....	.....	.....	385 8 6
Total A, VII ...	.....	1,206 13 0	866 9 8	2,465 3 10	112 8 0	.....	.....	4,651 2 6

B 827—15 NC.

FORM No. 61—*continued.*

Budget Heads.	Direction.	East Thána.	West Thána.	Surat.	Panch Mahâls.	Working Plans.	Bombay Forest Survey.	Total for the forest year 1892-93.
EXPENDITURE—*continued.*	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.—CONSERVANCY AND WORKS—*continued.*								
VIII.—Demarcation, Improvement and Extension of Forests.								
a. Demarcation	.....	1,721 12 3	6,707 8 11	8,912 15 1	559 4 4	.....	.....	17,901 8 7
b. Compensation for Land and Rights	.....	30,117 10 9	.....	.....	435 6 0	.....	.....	30,553 0 9
c. Forest Surveys	.....	4,113 0 0	7,272 12 1	383 14 7	617 0 0	.....	(*a*) 6,022 0 0	18,408 10 8
d. Working Plans	.....	.....	.....	.....	.....	8,857 1 1	.....	8,857 1 1
e. Sowing and Planting	.....	459 9 0	778 13 3	1,502 12 3	394 11 8	.....	.....	3,135 14 2
f. Protection from fire	.....	1,168 9 3	2,425 10 6	185 8 6	0 8 0	.....	.....	3,780 4 3
g. Other works	.....	350 4 0	1,327 7 10	47 7 9	.....	.....	.....	1,725 3 7
Total A, VIII ...	.....	37,930 13 3	18,512 4 7	11,032 10 2	2,006 14 0	8,857 1 1	6,022 0 0	84,361 11 1
IX.—Miscellaneous.								
a. Refunds	.....	.....	.....	.....	.....	.....	.....	.....
b. Law Charges	.....	6 0 0	1,229 8 0	.....	.....	.....	.....	1,235 8 0
c. Other Charges	0 14 3	—338 15 9	—581 10 9	—3 8 7	—358 8 6	.....	.....	—1,281 13 4
Total A, IX ...	0 14 3	—332 15 9	647 13 3	—3 8 7	—358 8 6	.....	.....	—46 5 4
TOTAL A.—CONSERVANCY AND WORKS ...	714 5 3	44,412 10 10	28,994 12 0	43,628 2 6	5,988 6 10	8,879 1 1	6,022 0 0	1,38,639 6 6

B. "ESTABLISHMENTS."

I.—Salaries.								
a. Conservators	.....	.....	.....	.....	.....	.....	.....	.....
b. Superior Officers	7,200 0 0	13,590 9 0	15,452 0 4	9,365 2 7	6,064 8 3	13,570 0 0	.....	65,242 4 2
c. Subordinate Forest and Depôt Establishments	.....	27,903 10 5	30,916 3 8	11,011 12 11	14,589 12 8	.....	.....	84,421 7 8
d. Office Establishments	1,553 6 10	3,791 8 0	3,865 14 7	2,376 15 8	2,350 7 7	1,314 10 3	.....	15,252 14 11
e. Deputation and Special Allowances	.....	.....	.....	9 0 0	.....	.....	.....	9 0 0
Total, B. I.	8,753 6 10	45,285 11 5	50,234 2 7	22,762 15 2	23,004 12 6	14,884 10 3	.....	1,64,925 10 9
II.—Travelling Allowances.								
a. Conservators	.....	.....	.....	.....	.....	.....	.....	.....
b. Superior Officers	1,201 4 0	3,217 11 0	3,831 0 0	2,271 4 6	1,662 8 9	2,250 0 0	.....	14,433 12 3
c. Subordinate Forest and Depôt Establishments	.....	1,189 15 4	1,212 2 5	1,175 4 2	796 10 11	.....	.....	4,374 0 10
d. Office Establishments	1,012 10 9	1,193 6 0	1,206 15 11	850 8 11	728 4 0	465 5 9	.....	5,457 3 4
Total, B. II	2,213 14 9	5,601 0 4	6,250 2 4	4,297 1 7	3,187 7 8	2,715 5 9	.....	24,265 0 5
III.—Contingencies.								
a. Stationery	27 2 6	466 12 10	499 13 7	260 6 10	251 1 2	.....	.....	1,505 4 11
b. Carriage of Tents and Records	284 3 0	434 12 0	398 13 6	231 13 6	152 15 0	.....	.....	1,502 9 0
c. Rents, Rates and Taxes	65 1 6	225 13 11	207 11 4	100 0 0	.....	.....	.....	598 10 9
d. Pay of Police Guards	.....	.....	.....	.....	.....	.....	.....	.....
e. Official Postage	80 5 6	1,023 4 0	809 15 0	484 1 0	329 2 0	.....	.....	2,726 11 6
f. Sundries	88 4 3	293 10 3	287 10 5	132 12 8	159 8 3	.....	.....	961 13 10
Payments to Officers of other Provinces	.....	.....	.....	.....	.....	.....	.....	.....
Total, B. III.	545 0 9	2,444 5 0	2,203 15 10	1,209 2 0	892 10 5	.....	.....	7,295 2 0
TOTAL B.—ESTABLISHMENTS	11,512 6 4	53,331 0 9	58,688 4 9	28,269 2 9	27,084 14 7	17,600 0 0	.....	1,96,485 13 2
GRAND TOTAL OF EXPENDITURE	12,226 11 7	97,743 11 7	87,683 0 9	71,897 5 3	33,073 5 5	26,479 1 1	6,022 0 0	3,35,125 3 8

(*a*) Amount of expenditure on account of Forest Surveys made by the Superintendent, Bombay Forest Surveys, in April, May and June 1893, in the two Divisions of Thâna { West Thâna Rs. 4,257-1-4 / East do. Rs. 1,764-14-8 } added as per his No. 193, dated 4th August 1893 (*vide* copy sent with No. $\frac{F.}{13890}$ dated 14th August 1893).

A. F. COX,
Accountant General.

Office of the Accountant General,
Bombay, 8th September 1893.

FORM No. 62.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Annual Account Current for the Forest year 1892-93, extending from 1st April 1892 to the end of 30th June 1893.

	Rs. a. p.	Rs. a. p.
To Opening Balance	.. ...	2,900 0 3
„ VIII.—Assessed Taxes—Income Tax— Deductions by Government from Salaries and Pensions..	.....	2,774 0 1
„ IX.—Forest (as per Summary)	.....	6,82,383 12 0
„ XII.—Interest— Interest on Arrears of Revenue	.....	.....
„ XXIII.—Stationery and Printing— Stationery Receipts— Sale-proceeds of Stationery Boxes	.....	.....
Other Press Receipts— Government Central Press	.....	.....
„ Revenue Deposits (Forests)	.....	43,793 8 10
„ Cheques and Bills (Departmental cheques) Forests	... ..	4.50,758 15 3
„ Advance Recoverable—		
Forest Advances	2,12,325 10 9	
Tentage Advances	211 1 3	
Objection Book Advances	794 10 8	
		2,13,331 6 8
„ Cash Recoveries	.....	5,581 15 5
„ Forest Remittances—		
Remittances to Treasuries	105 3 2	
Inter-divisional Transfers	14,216 3 10	
Inter-departmental Transfers	1,213 8 7	
		15,534 15 7
„ Bombay Uncovenanted Service Family Pension Fund, Widow's Branch	.....	296 13 2
„ Account between India and Bombay—		
III.—Items Adjustable by India—		
Bengal Military Fund	... ..	675 0 0
„ „ Orphan Fund	.....	332 0 0
„ Uncovenanted Service Family Pension Fund ...	.....	.....
„ Account between Bombay and Public Works Department, Bombay—		
IV.—Payments into Treasuries by Civil Officers on account of Public Works Department	.....	22 5 4
Total ...	.....	14,18,884 12 7

	Rs. a. p.	Rs. a. p.
I.—Refunds and Drawbacks—Refunds— Divided Heads, Forest	.....	1,888 13 11
II.—Forest (as per Summary)	.....	3,48,728 1 9
19.—Law and Justice— Jails, District Jails, Contingencies	... ..	.....
Revenue Deposits (Forests)	.....	46,398 7 11
Cheques and Bills (Forests Cheques cancelled)	.....	4,108 12 9
Advances Recoverable—		
Forest Advances	2,15,120 1 10	
Tentage Advances	.....	
Objection Book Advances	738 0 0	
		2,15,858 1 10
Cash Recoveries	... ..	5,581 15 5
Forest Remittances—		
Remittances to Treasuries	7,19,748 9 10	
Inter-divisional Transfers	71,346 11 6	
Inter-departmental Transfers	147 3 3	
		7,91,242 8 7
Account Current—		
Account between India and Bombay—		
III.—Items Adjustable by India, Bengal Military Orphan Fund..	.....	24 8 0
Account between Bombay and Public Works Department, Bombay, (Ordinary Branches)—		
IV.—Items adjustable by Public Works Department... ...	.....	2,616 3 6
Account between Bombay and Public Works Department (Railway Branch)...	.....	.....
Railway—		
IV.—Items Adjustable by Public Works Department ...	.....	.....
Closing Balance ...	.....	2,437 2 11
Total ...	.....	14,18,884 12 7

No. 16178.

Forwarded to the Deputy Conservator of Forests, Northern Circle, under Section 267 of the Forest Department Code.

Accountant General's Office,
Bombay, 8th September 1893.

A. F. COX,
Accountant General.

FORM No. 63.

FORM No. 63.

Forest Department, Bombay, Northern Circle.

Revenue received and Outstandings on account of Revenue during 1892-93.

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
East Thána ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	(*a*). Timber	.....	3,118 3 0	3,118 3 0	3,118 3 0	.....	
	(*b*). Firewood and charcoal... ...	.....	4 6 6	4 6 6	4 6 6	.....	
	(*c*). Grass and other minor produce ...	.....	643 10 10	643 10 10	643 10 10	.....	
	II.—Timber and other produce removed from the Forests by Consumers and Purchasers—						
	(*a*). Timber	3,488 10 0	96,386 11 6	99,875 5 6	98,829 1 6	1,046 4 0	
	(*b*). Firewood and charcoal... ...	.....	2,406 2 0	2,406 2 0	2,406 2 0	.....	
	(*c*). Bamboos	.....	9,003 13 0	9,003 13 0	9,003 13 0	.....	
	(*d*). Grazing and fodder grass ...	.....	3,847 6 0	3,847 6 0	3,847 6 0	.....	
	(*e*). Other minor produce	.....	655 1 3	655 1 3	655 1 3	.....	
	III.—Drift and Waif Wood and confiscated Forest produce	.....	1,220 2 0	1,220 2 0	1,220 2 0	.....	
	Total ...	3,488 10 0	1,17,285 8 1	1,20,774 2 1	1,19,727 14 1	1,046 4 0	
West Thána ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	(*a*). Timber	.....	820 10 6	820 10 6	820 10 6	.....	
	(*b*). Firewood and charcoal... ...	.....	1,787 15 0	1,787 15 0	1,787 15 0	.....	
	(*c*). Grass and other minor produce ...	.....	263 0 0	263 0 0	263 0 0	.....	
	II.—Timber and other produce removed from the Forests by Consumers or Purchasers—						
	(*a*). Timber	2,348 4 0	2,64,479 15 3	2,66,828 3 3	2,66,828 3 3	.....	
	(*b*). Firewood and charcoal... ...	.....	9,226 0 4	9,226 0 4	9,226 0 4	.....	
	(*c*). Bamboos	.....	12,705 6 5	12,705 6 5	12,705 6 5	.....	
	(*d*). Grazing and fodder grass ...	.....	15,147 15 0	15,147 15 0	15,147 15 0	.....	
	(*e*). Other minor produce	.....	2,475 2 6	2,475 2 6	2,475 2 6	.....	

	III.—Drift and Waif Wood and confiscated Forest produce	.....	739 11 6	739 11 6	739 11 6	.....
	Total ...	2,348 4 0	3,07,645 12 6	3,09,994 0 6	3,09,994 0 6	.....
Surat	*I.—Timber and other produce removed from the Forests by Government Agency—*					
	(*a*). Timber	.....	60,858 14 0	60,858 14 0	60,858 14 0	.....
	(*c*). Bamboos	.....	164 9 10	164 9 10	164 9 10	.....
	II.—Timber and other produce removed from the Forests by Consumers or Purchasers—					
	(*a*). Timber	5,300 0 0	49,876 0 9	55,176 0 9	55,176 0 9	.....
	(*b*). Firewood and charcoal... ...	.....	751 9 0	751 9 0	751 9 0	.....
	(*c*). Bamboos	.....	25,364 1 11	25,364 1 11	25,364 1 11	.....
	(*d*). Grazing and fodder grass ...	.....	1,303 6 0	1,303 6 0	1,303 6 0	.....
	(*e*). Other minor produce	.....	2,103 6 0	2,103 6 0	2,103 6 0	.....
	III.—Drift and Waif Wood and confiscated Forest produce	.....	294 5 2	294 5 2	294 5 2	.....
	Total ...	5,300 0 0	1,40,716 4 8	1,46,016 4 8	1,46,016 4 8	.....
Panch Mahals...	*I.—Timber and other produce removed from the Forests by Government Agency—*					
	(*a*). Timber	.....	1,094 10 0	1,094 10 0	1,094 10 0	.....
	(*b*). Firewood and charcoal	.....	726 12 0	726 12 0	726 12 0	.....
	II.—Timber and other produce removed from the Forests by Consumers or Purchasers—					
	(*a*). Timber	.....	71,272 11 1	71,272 11 1	71,272 11 1	.....
	(*b*). Firewood and charcoal... ...	.....	4,421 0 0	4,421 0 0	4,421 0 0	.....
	(*c*). Bamboos	.....	2,899 0 6	2,899 0 6	2,899 0 6	.....
	(*d*). Grazing and fodder grass ...	.....	5,853 6 6	5,853 6 6	5,853 6 6	.....
	(*e*). Other minor produce	.....	2,370 15 3	2,370 15 3	2,370 15 3	.....
	III.—Drift and Waif Wood and confiscated Forest produce	.....	92 15 10	92 15 10	92 15 10	.....
	Total ...	.....	88,731 7 2	88,731 7 2	88,731 7 2	.....

FORM No. 63—*continued.*

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Northern Circle.	*I.—Timber and other produce removed from the Forests by Government Agency—*						
	(*a*). Timber	.....	65,892 5 6	65,892 5 6	65,892 5 6	.....	
	(*b*). Firewood and charcoal... ...	.....	2,519 1 6	2,519 1 6	2,519 1 6	.....	
	(*c*). Bamboos	.....	164 9 10	164 9 10	164 9 10	.....	
	(*d*). Grass and other minor produce ...	.....	906 10 10	906 10 10	906 10 10	.....	
	II.—Timber and other produce removed from the Forests by Consumers and Purchasers—						
	(*a*). Timber	11,136 14 0	4,82,015 6 7	4,93,152 4 7	4,92,106 0 7	1,046 4 0	
	(*b*). Firewood and charcoal... ...	.....	16,804 11 4	16,804 11 4	16,804 11 4	.....	
	(*c*). Bamboos	.....	49,972 5 10	49,972 5 10	49,972 5 10	.....	
	(*d*). Grazing and fodder grass ...	.....	26,152 1 6	26,152 1 6	26,152 1 6	.....	
	(*e*). Other minor produce	.....	7,604 9 0	7,604 9 0	7,604 9 0	.....	
	III.—Drift and Waif Wood and confiscated Forest produce	.....	2,347 2 6	2,347 2 6	2,347 2 6	.....	
	Total ...	11,136 14 0	6,54,379 0 5	6,65,515 14 5	6,64,469 10 5	1,046 4 0	

Camp Dahisar, Thána District,
14th November 1893.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.,

P 827—17 No

FORM No. 64.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Outstandings and Liabilities on account of Contractors and Disbursers for the Forest Department year 1892-93, extending from 1st April 1892 to 30th June 1893.

Division.	Department Debtor.			Department Creditor.			Balance Due.		Remarks.
	At commencement of year.	Recoveries in cash and value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Liabilities).	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Contractors	Nil.	.....	.....	.....	.....	.....	.....	...	
Disbursers—									
East Thána...	...	74,170 10 6	74,170 10 6	170 11 6	75,640 2 1	75,810 13 7	1,640 3 1	...	
West Thána	...	55,834 8 2	55,834 8 2	.....	58,206 12 0	58,206 12 0	2,372 3 10	...	
Surat	...	48,101 13 7	48,101 13 7	1,344 8 7	49,567 6 11	50,911 15 6	2,810 1 11	...	
Panch Mahals	...	23,830 8 5	23,830 8 5	.....	24,149 13 10	24,149 13 10	319 5 5	...	
Working Plans	...	2,308 2 11	2,308 2 11	.....	2,308 2 11	2,308 2 11	.....	...	
Bombay Forest Surveys	...	8,079 15 2	8,079 15 2	2,832 3 1	5,247 12 1	8,079 15 2	.....	...	
Total ...	...	2,12,325 10 9	2,12,325 10 9	4,347 7 2	2,15,120 1 10	2,19,467 9 0	7,141 14 3	...	

No. $\frac{F.}{16173.}$

Forwarded to the Deputy Conservator of Forests, Northern Circle, Bándra, under Section 267 of the Forest Department Code.

Accountant General's Office,
Bombay, 8th September 1893.

A. F. COX,
Accountant General.

FORM No. 65.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Financial Results of the year 1892-93.

Division.	TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT-AGENCY.		OTHER REVENUE.		FORMATION, PROTECTION AND IMPROVEMENT OF FORESTS.	TOTAL.		REMARKS.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
East Thána ...	4,986	20,075	1,22,582	23,278	56,933	1,27,568	1,00,286	
West Thána ...	3,612	21,357	3,13,992	29,413	39,454	3,17,604	90,224	
Surat	61,318	24,357	86,199	21,337	28,744	1,47,517	74,438	
Panch Mahálś ...	1,915	10,861	88,236	11,771	12,743	90,151	35,375	
Working Plans ..	...	6,641	...	6,641	15,498	...	28,780	
Surveys	...	...	44	...	6,022	44	6,022	
Total ...	71,831	83,291	6,11,053	92,440	1,59,394	6,82,884	3,35,125	

Camp Dahisar, Thána District,
14th November 1893.

F. R. DASAI,
Deputy Conservator of Forests, Northern Circle.

No. 504 OF 1894.

REVENUE DEPARTMENT.

Camp Wajiria, 9th February 1894.

With reference to the Forest Administration Report of the Northern Circle already forwarded to Government with this office No. 297, dated 23rd ultimo, the Commissioner, N. D., begs to make the following remarks.

2. The table in paragraph 4 is not of much use. The number of towns with a population of over 4,000 does not seem to have much to do with the usefulness of the forests. For instance the real factor in the forest revenue of Thána is the proximity of Bombay; again in Surat the forests, which are insignificant, bear no relation to the size of the towns.

3. Paragraph 5 brings out what is a very distinguishing feature of the Northern Circle, and that is the very large forest area which is interspersed with our own, and belongs to Native States. The days of reckless forest mismanagement in these States is slowly but surely coming to an end. Some of their forests will, it is true, take years to recover from the mischief that has been done, but in all the more important States distinct progress is perceptible.

4. With reference to paragraphs 7, 8 and 9, the undersigned considers that it is time that some concerted action should be agreed on as to the order in which the offices of the Forest Settlement, the Forest Survey and the Working Plans should work. At present the three officers above mentioned work independently of each other and of the revision Revenue Survey. It is true that it is not easy to arrange a regular order of sequence, as there are special reasons which affect certain officers: *e. g.*, the Forest Survey has, it is believed, to divide its work every year between the three circles; again the Working Plans are wanted for blocks which have not yet been definitely settled and demarcated. The Commissioner, N. D., has consulted Mr. Sinclair, and hopes shortly to report on the matter.

5. In paragraph 10 the Deputy Conservator alludes to the most important event of the year in the Northern Circle, *viz.*, the Government Resolution deciding finally the vexed question of the Government right to trees in occupied lands. The counting of the exempted trees is a work which is now being done in connection with the revision survey.

6. The change in the area and name of the two Forest Divisions of Thána has been a real improvement. It was suggested by the local knowledge of the Collector and Forest Officers.

7. *Forest Settlements.*—The Western Thána work was put back owing to the unfortunate illness of Mr. McIver, but progress was made. In Eastern Thána, Mr. Orr was not set free from his work in the Kolába District till late in the season. It is to be regretted that his work in the 25 villages had to be upset by Mr. Sinclair for technical reasons, but the information required to complete the decisions is available, and the decisions have presumably been rewritten. As to Surat, the remark in paragraph 29 is at first sight irreconcileable with the figures in the table in paragraph 34, but the foot-note to the latter explains that the expenditure is for the Dángs. The progress in the Panch Maháls is satisfactory, and the Forest Settlement Officer, Mr. Maconochie, has worked well. The work of purchasing the land for the Tánsa catchment area was also practically completed by the Special Officer Mr. Nabar.

8. The progress of the survey work under the supervision of Colonel Hutchinson appears to be satisfactory.

9. The Working Plans Officer has this year worked only in the Northern Circle. The Government of India have accepted the fact that working plans based on area are suitable for the Thána District. The forecast of the time and cost required for laying each coupe and compartment will, it is presumed, be noticed in the report for 1893-94.

A fair amount of work has been done by Mr. Fry.

The system appears to work on the whole well for Thána. The same system is not applicable to the small but valuable forest patches in the south of the Surat Collectorate, nor for other reasons is it likely to suit the less valuable Mándvi Forests. For the Panch Maháls a system of working plans will have to be drawn up, but it is probable that the Thána system will require considerable modification to suit this district.

10. The new cattle-pounds in the Thána Forests have been a great success, as is shown by the remarks in paragraph 102. These pounds may well be introduced in other divisions and circles.

11. Under the head of General Protection, it is interesting to see that the Collector of Thána writes:—

"The wholesale systematic theft by capitalists employing large establishments, which I have myself seen, has now disappeared."

With regard to the petty thefts he says:—

"They are as a matter of fact the remnant of the old unlimited use of the forest (except the reserved 'Royalty trees') which was, under the Marátha Government, conditional on payment of a Forest cess, and was, even in Captain Francis' earliest revenue survey and settlement in the Konkan (that of Nasrápur), deliberately taken into account in assessing rice land.

"4. The habit of such use is not broken up in a day, and the serious protection of even the Royalty trees has been set about within my own time."

The remarks of the Deputy Conservator, 62 to 68, deserve serious attention. The importance of the Thána Forests and the revenue derived from them is so great that an increase in the subordinate staff is very necessary. In a short time the increased efficiency would pay for the increased expenditure.

12. *Breaches of Forest Law.*—The report does not show any startling increase or decrease, except in East Thána. Thána is by far the most important part of the circle, and the forest convictions have been carefully supervised by Mr. Sinclair. The analysis of the 419 cases compounded under Section 67 of the Forest Act shows that the section has not been abused, and as five-eighths of the cases were compounded for a rupee or under, it has evidently been leniently worked.

13. *Protection from fire.*—The Thána system has already met with the approval of the Government of India. Next year's report ought to show that the working of this system has been well established in the other districts. In depopulated areas like the Tánsa catchment village, officers have of course ceased to exist, and the strength of the Forest staff must be strengthened. Attention is requested to the good report of the work of the West Thána and Surat officers.

14. The system of closure for grazing differs so in different parts that it is not easy to draw any comparison between districts. The percentage of closure in Surat seems far too high if it includes the whole of Mándvi. But it is to be remembered that it is only a *close season* and not a total closure, and that probably the villagers benefit by the protection to the grass. The increase in impounding in Mándvi has attracted the Collector's attention, and will be watched by him.

15. Natural reproduction has been good in Thána and in the southern parts of Surat. In this as in many ways Mándvi and the Panch Maháls stand in need of attention.

16. The experiments with casuarina though not uniformly successful show that it can be grown to advantage.

17. It will be seen from paragraph 135 that in the case of the unsold coupes in East Thána the Forest Department did not carry out strictly the orders of Government Resolution No. 7107 of 6th September 1892. But the reason given for this deviation is sufficient, as it was done with the consent of the Revenue authorities, who were convinced that the small branch wood was not wanted for ráb supply.

18. The important question of grazing might have received more attention in the report. The Collector should explain the difference in the East and West Thána figures. It is not understood why foreign cattle, if willing to pay the fees, should have been excluded in the Panch Maháls.

19. The Commissioner trusts that Government will accept the arrangements made throughout the circle for the collection of minor forest produce. There is no reason to believe that the restrictions now imposed weigh at all harshly on the poorer classes. (See also paragraph 172.)

20. The plan for using the Ambika River for floating down the timber from the Dángs (see paragraphs 137, 138 and 160) will, if successful, open out a large field for the produce of these forests. During last year (see paragraph 208) the Deputy Conservator asked for leave to open a wood depôt on the shore of the Tápti for the supply of Surat. The timber was to have been floated down from the Mándvi forests. Unfortunately the Military authorities have vetoed this, as the Depôt was within cantonment limits. It is hoped that this difficulty may be removed, as the place is most suitable, and the benefit both to the inhabitants of Surat and the Department would be very great.

21. The figures in paragraph 164 show clearer than any lengthened description the difference between the East and West Thána Forests. The opening out of roads will improve the former to some extent, but nothing can ever make up for the nearness to the sea and the rail of the western portion.

22. The financial results are satisfactory.

23. This is the first report for the Northern Circle submitted by Mr. Desái, and the Commissioner trusts that Government will agree with him that it shows that Mr. Desái has grasped the idea of the duties of this important post. He has now made himself acquainted with every part of his charge, and his visit to the Dángs has already borne good fruit.

24. Mr. Millett has continued to deserve the character that he has already earned as an excellent officer. Mr. Greatheed was new to the District and suffered a great deal from fever. Mr. Wallinger has received commendation from the Collector and the Deputy Conservator. The Deputy Conservator commends the work of Mr. Rebeiro and Mr. C. G. Dalia, Sub-Division Officers.

25. The Commissioner has much pleasure in concurring with the Deputy Conservator in his remark that he has enjoyed the hearty co-operation of the Collectors of Thána and Surat. Both these officers take the greatest interest in the forest work of their districts, as is well known to Government. The result is shown by the entire absence of friction between the Revenue and Forest Departments.

G. B. REID,
Commissioner, N. D.

CENTRAL CIRCLE.

No. 4933 of 1893-94.

From

The Honourable Mr. A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle;

To

G. W. VIDAL, Esq.,
Chief Secretary to Government,
Revenue Department,
Bombay.

Camp Ahmednagar,
8th January 1894.

Sir,

I have the honour to submit herewith the Forest Administration Report of the Central Circle for the forest year 1892-93, together with its prescribed subsidiary statements.

I have the honour to be,
Sir,
Your most obedient Servant,
A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

Through the Commissioner, Central Division.

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FOREST ADMINISTRATION REPORT OF THE CENTRAL CIRCLE, BOMBAY PRESIDENCY, FOR THE FOREST YEAR 1892-93.

INTRODUCTION.

The Forest year 1892-93 will be a marked year in the annals of the forest history of the Presidency, for the reasons—

First, that under orders contained in Government Resolution No. 8315, dated 22nd October 1892, in the Revenue Department, the old Northern Circle has been divided into two circles, which are called, respectively, the Northern and the Central; the former being placed in charge of Mr. F. R. Dasái, Deputy Conservator of Forests, 1st Grade, while the latter remained in charge of Mr, A. T. Shuttleworth, Conservator of Forests, 1st Grade;

Second, that the reorganization of the superior staff of the Forest Department of the Presidency, according to the scheme which had been sanctioned by the Secretary of State for India, was brought into effect during the year, from the 1st April 1892; and

Third, that under orders of the Government of India contained in Government Resolution No. 5506, dated 6th July 1892, a new forest year embracing the period from 1st July to 30th June has been adopted for the preparation and submission of Forest Administration Reports; and consequently, to fit in with this change, the present Administration Report extends over a period of fifteen months, from 1st April 1892 to the 30th June 1893.

2. Forest reservations in the Central Circle have undergone very slight changes, which give a net increase in area of 11 square miles and 314 acres.

3. No settlement work in respect of lands notified under Section 34 of the Forest Act during 1879, remains to be completed in any of the divisions of the Central Circle; but forest and waste lands which have been provisionally notified under Sections 4 and 28 of the Forest Act, amounting to 424 square miles and 56 acres, were still undergoing settlement enquiries when the year came to a close.

4. The selection of forest or waste lands for reservation under the Forest Act, is also completed throughout the Circle, with the exception of a few localities in one táluka of the West Khándesh Division; but the work of demarcating upon the ground the sanctioned forest boundaries, by the erection of special forest boundary marks, still remains to be undertaken, more or less, and to a greater than to a lesser extent, in almost all the divisions of the Central Circle.

5. 28,193 special forest boundary marks were erected at a cost of Rs. 11,082 to define 1,730 linear miles of the forest boundaries during the year.

6. No new privileges upon the forests were granted to the people during the year; but some slight modifications were made in the North Tápti Privilege Code, under the authority of Government Resolution No. 2259, dated 28th March 1893, in the shape of a reduction in the scale of fees charged on bamboos.

7. The Forest Survey Party of the Government of India carried on its operations in the divisions of Poona and Sholápur only of the Central Circle; and the cost thereof during the forest year amounted to Rs. 31,082.

8. The Working Plans branch of the old Northern Circle was transferred to the new Northern Circle, and no Working Plans division has been created in the Central Circle; consequently there is nothing special to record under Working Plans, save that in all the divisions the differentiation of the forest areas into forest-blocks, and the sub-division of the latter into compartments, has been

started, and has made such considerable progress in some parts that compartments have been formed into coupes, which have been subjected to the exploitation of the timber, firewood, &c., they contained for trade purposes, and to meet the demands of local supply.

9. The number of forest offences for which prosecutions were instituted and disposed of by Magistrates came to 1,402; and that of cases compounded by the Divisional Forest Officers under Section 67 of the Forest Act, came to 9,647 during the fifteen months.

10. The number of cattle of different kinds impounded for trespassing into closed portions of forest reservations, as also for grazing without permits in open forests, numbered 381,459 during the forest year, against 334,640 in the preceding year of twelve months.

11. "Fire-conservancy" has received very close and considerable attention, and the results are on the whole satisfactory, and especially in the West Khándesh Division, although a comparison between the figures of 1891-92 and of 1892-93, may not appear to be so; but it should be remembered that the latter represent the results of two hot seasons.

12. The rainfall was seasonable in almost all the divisions of the Central Circle; and consequently reproduction, both natural and artificial, was generally fair and promising.

13. The financial results of the year were on the whole satisfactory; the net surplus amounting to Rs. 2,35,503.

14. Mr. A. T. Shuttleworth was in charge of the Central Circle throughout the year; and the following statement will show the names of superior Forest Officers who have been conducting the administration of the forests of the different divisions of the Central Circle, during the period of this report, and the stations they have occupied, with other particulars.

No.	Forest Division.	Name of Officer.	Rank.	Designation.	From	To	Remarks.
1	East Khándesh.	Mr. F. R. Dasái ...	Deputy Conservator, 1st Grade.	Divisional Forest Officer.	1st April 1892...	4th Aug. 1892.	
		,, E. G. Oliver ...	Do. 4th Grade,	Do. ...	5th Aug. 1892...	15th Nov. 1892.	
		,, R. H. Madan ...	Sub. *pro-tem.* Extra Assistant Conservator, 1st Grade.	Do. ...	16th Nov. 1892...	2nd May 1893.	
		,, L. D. Joshi ...	Extra Assistant Conservator, 1st Grade.	Do. ...	3rd May 1893 ...	22nd do..	
		,, E. G. Oliver ...	Deputy Conservator, 4th Grade.	Do. ...	23rd do. ...	19th June 1893.	
		,, R. H. Madan ...	Sub. *pro-tem.* Extra Assistant Conservator 1st Grade.	Do. ...	20th June 1893...	30th do.	
		,, B. H. Dalál ...	Do. 4th Grade.	Subdivision Forest Officer.	*20th June 1892.	14th Dec. 1892.	*New subdivision created from 20th June 1892.
		,, L. D. Joshi ...	Extra Assistant Conservator, 1st Grade.	Do. ...	15th Dec. 1892.	†22nd May 1893.	†Sub-division office abolished on 22nd May 1893.
2	West Khándesh.	Mr. E. G. Oliver ...	Deputy Conservator, 4th Grade.	Divisional Forest Officer.	1st April 1892...	18th April 1893.	
		,, R. H. Madan ...	Sub. *pro-tem.* Extra Assistant Conservator, 1st Grade.	Do. ...	19st April 1893...	1st May 1893.	
		,, B. H. Dalál ...	Do. 4th Grade.	Do. ...	2nd May 1893...	18th do.	
		,, E. G. Oliver ...	Deputy Conservator, 4th Grade.	Do. ...	19th do. ...	30th June 1893.	
		,, G. S. Hinge ...	Extra Assistant Conservator, 3rd Grade.	Sub-division Forest Officer.	1st April 1892...	12th April 1892.	
		,, E. G. Oliver ...	Deputy Conservator, 4th Grade.	Do. ...	13th do. ...	12th May 1892.	
		,, G. S. Hinge ...	Extra Assistant Conservator, 3rd Grade.	Do. ...	13th May 1892 ...	17th Dec. 1892.	
		,, B. H. Dalál ...	Sub. *pro-tem.* Extra Assistant Conservator, 4th Grade.	Do. ...	18th Dec. 1892 ...	30th June 1893.	
3	Násik	Mr. W. G. Betham ...	Acting Deputy Conservator, 1st Grade	Divisional Forest Officer.	1st April 1892...	30th June 1893.	
		,, W. A. Wallinger.	Extra Assistant Conservator, 2nd Grade.	Sub-division Officer.	Do. ...	1st Sept. 1892.	
		,, W. R. Gaundé ...	Do. 1st Grade.	Do. ...	2nd Sept. 1892...	30th June 1893.	
4	Ahmednagar ...	Mr. A. D. Wilkins ...	Deputy Conservator, 3rd Grade.	Divisional Forest Officer.	1st April 1892...	9th June 1892.	
		,, S. Hormidge ...	Acting do. ...	Do. ...	10th June 1892...	30th June 1893.	

No.	Forest Division.	Name of Officer.	Rank.	Designation.	From	To	Remarks.
5	Poona	Mr. R. C. Wroughton.	Deputy Conservator, 1st Grade.	Divisional Forest Officer.	1st April 1892...	20th April 1892.	
		„ F. Gleadow ...	Do. 3rd Grade.	Do. ...	21st do. ...	9th Sept. 1892.	
		„ A. D. Wilkins ...	Do. do. ...	Do. ...	10th Sept. 1892 .	30th June 1893.	
		„ W. R. Gaundé ...	Extra Assistant Conservator, 1st Grade.	Sub-division Forest Officer.	1st April 1892...	4th May 1892.	
		„ F. Gleadow ...	Deputy Conservator, 3rd Grade.	Do. ...	5th May 1892 ...	3rd June 1892.	
		„ J. H. Clabby ...	Extra Assistant Conservator, 2rd Grade.	Do. ...	4th June 1892...	27th June 1893.	
		„ A. D. Wilkins ...	Deputy Couservator, 3rd Grade.	Do. ...	28th June 1893...	30th do.	
6	Sátára	Mr. R. S. F. Fagan ...	Do. do. ...	Divisional Forest Officer.	1st April 1892...	30th do.	
		„ L. D. Joshi ...	Extra Assistant Conservator, 1st Grade.	Sub-division Forest Officer.	Do. ...	3rd Dec. 1892.	
		„ B. M. Khárkar ...	Huzúr Deputy Collector, Sátára.	Do. ...	4th Dec. 1892 ...	19th do.	
		„ G. S. Hinge ...	Extra Assistant Conservator, 3rd Grade.	Do. ...	20th do. ...	30th June 1893.	
7	Sholápur ...	Mr. S. Hornidge ...	Acting Deputy Conservator, 3rd Grade.	Divisional Forest Officer.	1st April 1892 ..	27th do.	
		„ J. H. Clabby ...	Extra Assistant Consrrvator, 3rd Grade.	Do. ...	28th June 1893 ...	30th do.	

CHAPTER I.

EXTENSION AND CONSTITUTION OF STATE FORESTS.

(i). ALTERATION IN AREA.

15. The year opened with 5,711 square miles and 605 acres of reserved forests, and 190 square miles and 100 acres of protected forests, making a total of 5,902 square miles and 65 acres in the charge of the Forest Department, scattered over the seven divisions which compose the Central Circle. 20 square miles and 584 acres were added to reserved forests under Section 19 of the Indian Forest Act, and 9 square miles and 93 acres were excluded from reserved forests under Section 26 of the Act. No additions have been made to the protected forests, but on the other hand, 177 acres have been excluded from protected forests during the fifteen months. And the total area of forest reservations in the Central Circle, at the close of the forest year, on the 1st July 1893, amounted to 5,913 square miles and 379 acres, made up of 5,723 square miles and 456 acres of reserved, and 189 square miles and 563 acres of protected forests, showing a net increase of 11 square miles and 314 acres in all. The particulars of each division are to be seen in Forms Nos. 46 and 46-A. attached to this report.

(ii). FOREST SETTLEMENTS.

16. The forest settlement work is practically finished in all the divisions of the Central Circle, for the forest conservancy project of every táluka has been drawn up, approved and sanctioned by Government. No settlement work in respect of lands notified under Section 34 of the Forest Act during 1879, remains to be done, but claims attaching to forest and waste lands, provisionally notified under Sections 4 and 28 of the Forest Act, were being inquired into, settled and recorded by the Forest Settlement Officers. In addition to this the Forest Settlement Officers were engaged in acquiring occupied lands included within the sanctioned projects of forest reservations, and in preparing forest registers, &c.; and the following is a short summary of the Settlement Officers' proceedings during the year.

Khándesh Collectorate.

17. Mr. C. G. Dodgson, I.C.S., was the Forest Settlement Officer, specially appointed, from 1st April 1892 to 5th August 1892, when he was transferred to act as Under Secretary to Government, in the Revenue Department, for three months, and on being relieved from that duty he proceeded on three months' privilege leave of absence, and finally returned on the 21st February 1893 and re-assumed charge of the Forest Settlement Office from Mr. A. Lucas

I.C.S., who had acted during his absence ; and Mr. Dodgson, continued to hold that appointment up to the end of the forest year.

During the months of April and May 1892, the demarcation upon the ground of the boundaries of Bhil settlements, which are enclosed by the Akráni-Narbada reserved forest, was completed, as well as the demarcation on the ground of the southern boundary line of the reserved forest, which had been left unfinished in 1891-92. During the rainy season, reports were submitted on the above work, as well as on the forest conservancy project of the Sindkheda Táluka, and of the southern portion of the Pimpalner Táluka.

On his return from privilege leave in February, Mr. Dodgson proceeded to the Akráni Pargana to hold local inquiries into any private rights which might be claimed in respect of, or found to be attaching to, the Akráni-Narbada proposed reserved forest, and on finishing this work he received charge of the Assistant Collector's office of the western division of Khándesh from Mr. Lucas, who was proceeding on furlough ; and since then he has been in charge of the Forest Settlement Office in addition to his duties as Assistant Collector. In April and May 1893, Mr. Dodgson settled claims to forest rights in the Navápur Petha and in the northern part of the Pimpalner Táluka, where certain lands had been notified provisionally as reserved forest under Section 4 of the Forest Act.

The detailed inquiries into the forest rights of Inámdárs, which have been going on for years, have been completed, and the final reports have been submitted ; so that there are now only 4 villages in respect of which orders of Government remain to be issued.

Certain occupied lands inside forest boundaries were acquired for conversion into reserved forests, by payment of compensation, or by giving other lands in exchange for them, in the Amalner Range ; these with the lands acquired last year in the Erandol Táluka were notified under Section 4 of the Forest Act. Similar notifications were also submitted for publication regarding other occupied lands acquired in the Jámner, Amalner and Páchorá tálukas.

The areas added to reserved forest during the year are distributed thus :—

Range.	Area.	
	Sq.m.	Acres.
Savda	1	383
Chopda	2	402
Bhusával	2	203
Shirpur	1	60
Nandurbár	2	215
Total ...	9	623

The occupied lands obtained on payment of compensation are distributed thus :—

Range.	Area.	Compensation.
	A. g.	Rs a. p.
Jámner ...	161 0	702 6 2
Amalner ...	388 38	1,005 3 4
Páchora ...	1 17	5 0 0
Total ...	551 15	1,712 9 6

The area disforested during the year is returned as under:—

Range.	Area.	
	Sq.m.	Acres.
Páchora	1	328
Shirpur	...	197
Nandurbár	1	190
Pimpalner	1	569
Total ...	5	4

About 199 square miles and 95 acres of reserved forests and 218 square miles and 346 acres of protected forests, in charge of the Forest Department and provisionally notified, remained to be finally settled and gazetted, in the Khándesh District, on the 30th June 1893.

Mr. Dodgson has, as usual, worked with great zeal, activity and energy for the forest interests of Government, with a careful regard for the satisfaction of the wants of the wild tribes, and for the demands of agriculture.

Násik Collectorate.

18. There has been no special Forest Settlement Officer for this district, as the work of settlement has been practically completed long ago, but some occupied lands, which are inside the sanctioned forest boundaries, remain to be acquired, and the settlement, after provisional notification of such portions of these as are obtained, from time to time, is carried on by the Assistant Collectors of the district, who have been appointed *ex-officio* Forest Settlement Officers, in respect of their revenue sub-division, for the purpose. 198 acres were acquired and provisionally notified under Section 4 during the year, and 194 acres were finally notified under Section 19 of the Forest Act.

Ahmednagar Collectorate.

19. Mr. V. B. Vadekar was special Forest Settlement Officer throughout the year. Forest-settlement work is practically finished, but the work of acquisition, by purchase or by exchange, of lands at present in occupation which are inside the sanctioned forest-boundaries, still remains to be completed, and the preparation of forest registers containing a complete record of rights in respect of the forest area of every range, has to be prepared: 219 acres of occupied lands were acquired by exchange, and 81 acres by payment of compensation at a cost of Rs. 677, for conversion into reserved forest. A very large area of occupied lands, amounting to no less than 26,524 acres enclosed within reserved forests, still remains to be acquired. Some of the acquired lands were notified under Section 4, and were also duly settled. Forest registers of the Shrigonda, Nevása, Shevgaon, Ráhuri, Kopargaon, Sangamner and Akola Tálukas, and those of the Railway B. class forest lands of 52 villages were prepared and furnished for the use of Village Officers and Range Forest Officers. Lists giving the old revenue survey numbering of the forest lands notified from time to time under Sections 19, 28 and 34 of the Forest Act, with the corresponding numbering according to the Revision Survey, or in other words, the revised description of boundaries of these reserved forests for the tálukas of Ráhuri, Shrigonda, Párner, Sangamner, Kopargaon and Akola, were also prepared and published in the *Government Gazettes*.

Mr. Vadekar has done a year's good substantial work, and the Conservator has much pleasure in testifying to the fact.

Poona Collectorate.

20. Mr. C. P. B. Wiltshire, I. C. S., was in charge of the forest settlement office throughout the year, in addition to his own revenue and magisterial duties as First Assistant Collector. 911 acres of occupied lands within the sanctioned forest boundaries were acquired for conversion into reserved forest. 906 acres of

this quantity were obtained by giving other waste lands in exchange for them, and 5 were secured by payment of compensation, amounting to Rs. 40. Settlement inquiries were made in the tálukas of Bhimthadi, Mával, Haveli, Junnar and Sirúr, and 791 acres were thus finally settled, and draft notifications in respect of them under Section 19 will be submitted after the period of appeal has expired. Settlement inquiries in repect of the Inám village of Khor, in the Bhimthadi Táluka, have also been completed. The Forest Settlement Officer has commenced preparing lists for publication showing the forest areas as described, according to the old survey, in the original notifications, and the corresponding survey numbers with areas under the Revision Survey, and the statements for táluka Khed and Ámbegaon petha have been submitted to Government, with a view to their publication in the *Government Gazette*. The preparation of forest registers, in English, in the form prescribed in the Forest Department Code, was also taken in hand; and registers for the tálukas of Indápur, Mával and Junnar have been prepared and sent to the Divisional Forest Officer. 1,274 acres were disforested during the year, and 1,702 acres have been notified under Section 4.

The special arrangements which Mr. Wiltshire has effected, since he has been in charge of the settlement office, for the obtainment of occupied lands situated within the sanctioned forest boundaries for their conversion into reserved forest, by exchanges, &c., would seem to be very satisfactory, and to the interests of both the Revenue and Forest Departments.

Sátára Collectorate.

21. There was no special Forest Settlement Officer for this collectorate up to 3rd December 1892, and the Assistant Collectors were *ex-officio* Forest Settlement Officers for their own revenue jurisdictions, respectively, up to that time; but Government in their Resolution No. 7897, dated 5th October 1892, in the Revenue Department, appointed Mr. S. R. Arthur, I. C. S. to be special Forest Settlement Officer of the Sátára District; and he accordingly took charge of his duties on 3rd December 1892, and up to the end of April 1893, visited the tálukas of Khánápur, Koregaon, Wái, with Khandála Petha, Jávli, Khatáv, Tásgaon, Válva and Pátan, but he unfortunately met with a gun accident on the 30th April, while in the Pátan Táluka, and from that date forward was unable to attend to out-door duties, though he carried on the office work, but as it was near the close of the travelling season the delay in the out-door work has been inconsiderable.

The principal items of work performed by the Forest Settlement Officer were:—

(1). Preparation of forest registers for each range.

(2). Comparison and correction of village forest registers.

(3) Submission of draft notifications under Sections 4 and 26 of the Forest Act, and of *errata* where necessary.

(4). Enquiry under Section 6 of the Forest Act into private rights and rights of way, &c.

(5). Submission of reports on the forest rights of Inámdárs.

Enquiries into private rights appear to have been conducted with great care, and no appeals were presented to the Collector. The work of effecting exchanges of lands in the Pátan Táluka and the Shirála Petha, for the acquisition of such occupied lands as were located within the sanctioned forest boundaries, has made considerable progress, and what remains to be done in this direction is being pushed on rapidly.

The Conservator cordially endorses the opinion of the Collector, that "Mr. Arthur has worked with assiduity and care and has given me satisfaction."

Sholápur Collctorate.

22. The forest settlement of the Collectorate is practically finished, but here also the work of acquiring some lands at present occupied, and which are

situated within the sanctioned forest boundaries, remains to be accomplished. The Deputy Collector, who has been in charge of the Forest Settlement Office throughout the year, in addition to his own revenue and magisterial duties, has seemingly been unable to effect any acquisitions, either by exchanges or by purchase, during the year. Settlement inquiries in respect of 142 acres, which, though acquired before the year opened, were provisionally notified under Section 4 during the year, were still undergoing at the close of the year.

23. The following is a complete statement of the forest and waste lands, provisionally notified under Sections 4 and 28 in the several divisions of the Central Circle, the settlement inquiries in respect of which still remained to be undertaken at the close of the forest year :—

No.	Division.	Section 4.		Section 28.		Total.	
		Sq.m.	Acres.	Sq.m.	Acres.	Sq.m.	Acres.
1	East Khándesh ...	11	373	...	...	11	373
2	West Khándesh ...	187	362	218	346	406	68
3	Násik	...	198	...	...	...	198
4	Ahmednagar	...	579	...	...	...	579
5	Poona	2	422	...	...	2	422
6	Sátára	2	194	...	...	2	194
7	Sholápur	...	142	...	...	...	142
	Total ...	205	350	218	346	424	56

24. And the following statement exhibits the area acquired by exchange and by purchase, together with the amount paid in compensation and the average rate per acre, in the several divisions of the Central Circle :—

No.	Division.	Area acquired.		Amount of Compensation paid.	Average Rate per Acre.
		By exchange.	By purchase.		
		Acres.	Acres.	Rs.	Rs. a. p.
1	East Khándesh ...	.....	551	1,713	3 1 8
2	West Khándesh ...	.....	.....	.....	.....
3	Násik	.....	.....	.....	.....
4	Ahmednagar	219	81	677	8 5 8
5	Poona	906	5	40	8 0 0
6	Sátára	300	30	10	0 5 4
7	Sholápur	.....	.....	.....	.....
	Total ...	1,425	667	2,440	3 10 6

Privileges.

25. No new concessions, in the way of privileges on the forests, were granted to the people during the year; some slight modifications were, however, made in the North Tápti Privilege Code, under the authority of Government Resolution No. 2259, dated 28th March 1893, in the Revenue Department, whereby a reduction of 25 per cent. in the scale of fees charged on bamboos was effected; and Government in their Reslution No. 9846, dated 15th December 1892, in the Revenue Department, have directed that the collection and sale of articles of minor forest produce should be left free and unrestricted, save

(1) Articles for which a trade demand exists, or for which there is a reasonable probability that such demand may in time be created, and

(2) Articles such as catechu the collection or manufacture of which it is necessary in the interests of forest conservancy to keep under effective control.

26. The following statement shows the cost of Forest Settlement Officers and their establishments entertained in the several divisions of the Central Circle :—

No.	Division.	Forest Settlement Officers.		Office Establishments.		Contingencies.	Total.
		Pay.	Travelling allowance.	Pay.	Travelling allowance.		
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1	East Khándesh	7,796	1,450	4,894	1,696	502	16,338
2	West Khándesh						
3	Ahmednagar	...	...	480	210	165	855
4	Poona...	...	...	1,467	540	478	2,485
5	Sátára	3,687	1,208	1,114	36	491	6,536
	Total ...	11,483	2,658	7,955	2,482	1,636	26,214

The pay and travelling allowances drawn by the Forest Settlement Officers themselves are not charged in the forest accounts, but only the cost of their establishments and their contingent expenditure: thus the total amount debited in the forest accounts under A. VIII. *b*. "Compensation for land and rights" amounted to Rs. 12,073.

27. The selection of lands for forest reservations has been, practically, finished in all the divisions of the Central Circle, except in one táluka of the West Khándesh Division, as will be seen from the statement given below. :—

No.	Division.	Number of Talukas.	Number of Talukas,			Remarks.
			in which demarcation has been completed and sanctioned.	in which demarcation is incomplete.	in which demarcation is not undertaken.	
1	East Khándesh	9	9	...	...	
2	West Khándesh	7	6	*1	...	*Pimpalner.
3	Násik	12	12	...	...	
4	Ahmednagar	11	11	...	...	
5	Poona	8	8	...	...	
6	Sátára	11	11	...	...	
7	Sholápur	7	7	...	...	
	Total ...	65	64	1	...	

(iii). DEMARCATION.

28. The work of demarcating upon the ground, approved and sanctioned forest boundaries by the erection of special forest boundary marks still remains to be done, more or less, to a much greater extent than has been accomplished up to date, in almost all the divisions of the Central Circle; and the following statement will show the progress made during the year :—

No.	Division.	Length of boundaries in miles.	Number of Cairns erected.			Cost.
			Large.	Small.	Total.	
1	East Khándesh...	4	18	...	18	58
2	West Khándesh...	451	644	3,742	4,386	1,978
3	Násik	319	1,216	8,816	10,032	3,929
4	Ahmednagar	117	2,140	1	2,141	1,171
5	Poona	178	3,225	635	3,860	1,846
6	Sátára	528	492	5,740	6,232	1,583
7	Sholápur	133	23	1,501	1,524	517
	Total ...	1,730	7,758	20,435	28,193	11,082

29. The outer boundary demarcation of forest reservations in East Khándesh has been completed to a great extent by the Forest Settlement Officer, but as the boundary marks are too far apart to be visible one from the other, intermediate marks have still to be erected in many places to connect the existing ones, and this work will now be pushed on with vigour; during the year of this report only 18 new pillars were erected, but such of the old boundary marks as required to be repaired were put into order.

30. In the West Khándesh Division Rs. 1,978 were expended, mainly by the Forest Settlement Officer, whose surveyors are employed in building the forest boundary marks, and they erected 509 large and 3,557 small pillars at a cost of Rs. 1,632; while 135 special forest boundary marks of the 1st class, and 185 of the 2nd class, were newly erected; and 2,905 boundary marks which had been constructed in preceding years, and had become dilapidated, were re-constructed by the Divisional Forest Officer at a cost of Rs. 346.

31. In the Násik Division 1,968 new cairns were erected in the Peint Táluka at a cost of Rs. 88; and in other ranges 8,064 marks were put up at an expenditure of Rs. 2,688; 6,445 cairns were also repaired at Rs. 1,153.

(iv). SURVEYS.

32. The Forest Survey branch of the Government of India, working in the Central Circle, was in charge of Colonel Hutchinson, with Messrs. A. M. Lawson, S. F. Norman and C. A. Norman as his Assistants, throughout the year, and carried on its operations in the divisions of Poona and Sholápur only; and the following statements will show a comparison of the work performed and the expenditure incurred during the survey years ending 30th September 1892 and 30th September 1893, as directed in Government Resolution No. 4515, dated 3rd July 1891, in the Revenue Department.

Statement showing the amount and cost of work done by No. 17 Party (Bombay Forests), in the Central Circle, during the Survey year ending 30th September 1892.

District.	Táluka.	Triangulation.		Traversing.		Topography.				Total.	Remarks.
						8″		10″			
		Area.	Cost.	Area.	Cost.	Area.	Cost.	Area.	Cost.		
		Sq.m.	Rs.	Sq.m.	Rs.	Sq.m.	Rs.	Sq.m.	Rs.	Rs.	
Poona ...	Junnar ...	103	484	(a)23	497	...	...	...	...	981	(a) 180 linear miles all in advance.
	Haveli	75	1,747	...	...	50·75	6,730	...	...	8,477	
	Indápur ...	...	...	...	...	...	...	15·39	2,884	2,884	
Ahmednagar ...	Akola	220	411	...	...	...	...	...	...	411	
Sholápur ...	Karmála and Mádha ...	...	...	...	...	...	...	(b)24·43	4,578	4,578	(b)Karmála (13·74) and Mádh (10·69).
		458	2,642	23	497	50·75	6,730	39·82	7,462	17,331	
Cost per square mile ...		...	5 12 4	...	21 9 8	...	132 9 9	....	187 6 4	...	

Statement showing the amount and cost of work done by No. 17 Party (Bombay Forests), in the Central Circle, during survey year ending 30th September 1893.

District.	4" Triangulation.		8" Topography.		16" Topography.		Total.	Remarks.
	Area, Square miles.	Cost.	Area, Square miles.	Cost.	Area, Square miles.	Cost.		
		Rs.		Rs.		Rs.	Rs.	
Poona	230	3,318	...	...	...	...	3,318	Junnar 80 and Haveli 150.
„	...	...	109	15,157	...	...	15,157	Junnar 96·75 and Haveli 12·25.
„	...	...	...	...	15·50	4,080	4,080	Indápur 9, Khed 3·35. Bhimthadi 2·97 and Mával 0·18.
Sholápur... ...	...	...	...	...	6·0			Karmála.
Total ...	230	3,318	109	15,157	21·50	4,080	22,555	
Cost rate ...	...	14 6 10	...	139 0 11	...	189 12 3	...	

33. The cost of the topography on both the 8″ and the 16″ scales are slightly greater this year than last, but the difference is so small that the Superintendent has given no explanation on the point. The 16-inch work of the riparian bábul reserves was first commenced in the Poona and Sholápur divisions. 8 sub-surveyors with their squads were equipped and despatched from Poona about the 15th of October; 3 of these went to the neighbourhood of Indápur on the Poona and Sholápur boundary, and Mr. A. M. Lawson was told off to follow and examine their work on the close of his recess duties. The remaining 5 commenced work on the Bhima river in the Poona District, and were afterwards visited and superintended by Colonel Hutchinson and Mr. C. Norman. The work on the Bhima, however, proved very scattered and not extensive as regards the area, so the ground was soon completed, and this establishment had to be moved on to the Nira river, south of Poona.

34. Recess at Poona was closed at the end of October, and the rest of the plane-tablers then moved out under Mr. S. F. Norman to take up the 8″ detail survey in the Junnar Táluka, whilst Colonel Hutchinson and Messrs. Lawson and C. Norman proceeded to superintend the 16″ survey work, which was brought to a close at the end of December.

35. The 8″ work in the Junnar Táluka closed at the end of February 1893, and the establishment then moved into the Thána District.

36. The area triangulated upon in the Haveli Táluka of the Poona District forms the head of the Mutha river valley; it is hilly and has a good deal of verdure on it, but the tops of the spurs and hills are mostly clear of forest, so that it presents no exceptionable difficulties to triangulation. Its climate is perfect, being close to the edge of the Western Ghâts, and it is accessible as being close to Poona and the Railway line. The ground in the Junnar Táluka is bare of timber, but is rugged and mountainous; it is easy of triangulation and readily admits of minute work being done.

37. The ground of the bábul reserves surveyed on the 16″ scale on the Bhima river in the neighbourhood of Indápur, falling into the Poona and Sholápur districts, was flat and most of it poorly wooded, though some of the blocks contained closely grown and valuable bábul timber. The blocks were not very much scattered, and some of them were large, while the details on the ground were few, so that a fair area was surveyed pretty rapidly.

38. The work, on the 16″ scale, of the bábul reserves on the Bhima and Pauna rivers in the Khed and Mával tálukas of the Poona District, was done under Colonel Hutchinson and Mr. C. Norman. It consisted mainly of fringes of bábul growth on the banks of the rivers, and much scattered, so that the sub-surveyors lost much time in moving from one bit of work to another. The

character of the ground was much of it hilly and raviney, whilst the attenuated and contorted shapes of the blocks involved a good deal of survey, but enclosed very little actual forest area.

39. The 16″ work on the Nira river in the Bhimthadi Táluka of the Poona District much resembles that on the Bhima and Pauna rivers, and there is comparatively little area to show for a considerable amount of survey and labour undergone.

40. The ground treated under the topographical survey on the scale of 8″ to the mile is most of it mountainous and rugged in the extreme, and also raviney; but being sparsely covered with timber, there was no difficulty in seeing the features of the ground, some of them on a very vast scale, and of most extraordinary shapes, and admitting of survey in great minute detail: it has been excellently rendered, and the maps are perfect pictures of the ground.

41. The total expenditure on forest surveys during the forest year ending 30th June 1893, is Rs. 31,082. The Superintendent reports that the year's work may be regarded as very satisfactory; and the Conservator has much pleasure in testifying to the zeal and energy with which Colonel Hutchinson and his Assistants have performed their duties during the year of this report.

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

I.—REGULATION OF MANAGEMENT.

(*a*). Working Plans.

42. The Working Plans Officer with his staff, forming the Working Plans Division of the old Northern Circle, having been attached to the new Northern Circle when the two new circles were made, and no Working Plans Officer having been appointed to, and no Working Plans Division having been created for, the Central Circle, there have been no special arrangements for preparing working plans of the forests in the Deccan during the year of this report; but the several Divisional Forest Officers have, in addition to their other duties, undertaken the differentiation of their forest areas into forest blocks with the sub-division of the latter into compartments, and considerable progress has been made in this direction during the year, as will be seen.

43. Mr. Madan, Divisional Forest Officer, East Khándesh, has divided the Trans-Purna bábul reserves into two blocks, and each block into 40 compartments, for the exploitation of bábul (Acacia arabica) and subsequent restocking the worked area by ploughing the ground and sowing seeds of Acacia arabica mixed with nim (Melia azadirachta), blackwood (Dalbergia latifolia) and such other valuable species as are likely to thrive upon the soil. The forest areas in the Páchora and Jámner ranges have been provisionally differentiated into blocks with a view to their sub-division into compartments.

44. In the Násik Division the forests of the Násik, Igatpuri, Sinnar, Niphád and Nándgaon ranges have been parcelled out into forest blocks, and 34 compartments were laid out on the ground in 34 of the blocks, one in each, and some of these compartments have been converted into coupes, and have undergone exploitation. Maps of the blocks in the Nándgaon Range, with few exceptions, have been prepared by the Forest Survey; and those for Násik, Igatpuri, Sinnar, Málegaon and Dindori are in the course of preparation from the Revenue Survey maps; while the maps of the Niphád Range have been completed.

45. In the Ahmednagar Division the teak (Tectona grandis) forests of the Akola and Sangamner ranges were worked, as usual, in accordance with the scheme prepared by Mr. Hight several years ago; and a working plan, based on area, providing for a rotation of 40 years has been applied to 37 bábul reserves situated on the banks of large rivers and streams. Compartments have been made into coupes, and the timber to be removed has been felled and taken out, and some of the exploited coupes have been sown up and enclosed after the ground had been prepared for the reception of seeds.

46. A considerable portion of the forest area of the Poona Division has been differentiated on the maps into forest blocks; and during the year, 50 blocks were formed as under :—

Range.	No. of blocks.
Junnar...	17
A'mbegaon	10
Khed	7
Haveli...	6
Mával	5
Bhimthadi	5
Total ...	50

All these blocks have also been divided into 40 compartments; and 26 compartments in all the above ranges, except Bhimthadi, have been marked out on the ground for conversion into coupes for the timber operations of the ensuing season.

47. No working plans have been applied up to date to the forests in the Sátára Division; but the Divisional Forest Officer, Mr. Fagan, has drawn up provisional plans for the working of the whole of the teak region, except in the Pátan Range, on a rotation of 40 years, and the first experimental coupes in Jávli, Karád, Khandála, Khatáv, Koregaon, Sátára and Wái Ranges have been marked on the ground.

48. In the Sholápur Division provisional working plans for the exploitation of the bábul reserves, situated on the banks of streams and rivers, have been drawn up, and 10 coupes, aggregating an area of 277 acres, in the ranges of Sholápur, Mádha and Pandharpur have been sold for the exploitation of timber and firewood at the cost of the purchasers.

49. The laying out of forest blocks, and of the component compartments of forest blocks, upon the ground is retarded for the want of subordinates qualified in surveying to carry on this work in all divisions and in all ranges of every division. The forest areas are very wide-stretching and scattered, and the work of parcelling them all out into blocks and compartments, and of demarcating the boundaries upon the ground of the blocks and compartments, is herculean, and unless a large staff of surveyors is specially organized to undertake it in every division, the work must necessarily be of very slow progress. At best, only one compartment to become a coupe for the exploitation of timber and other forest produce from it, can be demarcated annually by the Range Forest Officers, and the one divisional surveyor, in the more accessible forest blocks of some of the ranges in a division; and the work is also to a certain extent hung up, while the forest areas are in a state of transition, under settlement inquiries, and sorting into classes.

Then, again, specially trained subordinates are required, in greater numbers than are at present available, in order to be able to prepare all the annual compartments of a division to become coupes. An ordinary forest guard, who has received no professional education, and whose natural intelligence is not of a high class, is not able to make a good selection of the trees in a compartment which are required to be reserved to live through another rotation, to select correctly the trees to be felled, and to make an enumeration, classification, contents calculation and valuation of the latter, and as the success of the working plans of forests of the Deccan depends greatly upon the way the sylvicultural rules drafted to regulate heavy improvement fellings are applied to the compartments in their conversion into coupes, it is necessary that the work should be entrusted to men who are capable of performing it satisfactorily.

(*b*). Annual Plans of Operations.

50. The annual plans of operations were, as usual, drawn up and submitted after the total figures of the sanctioned Budget Estimates of the year had been communicated, and they provided, among other operations, for the exploitation of timber and firewood by departmental fellings as well as by purchasers and

consumers, the departmental collection of the hirda (nut of Terminalia chebula), collection of shikakai (Acacia concinna) by purchasers, supply of bamboos on the permit system, &c. The demand for grass and grazing was met by sales of valuable kurans, or special grass reserves, and of grass on permits. Grazing to agricultural and other cattle was furnished in open forests on free and fee permits in accordance with the orders of Government on the point. The Bhil privilege-holders in the two divisions of Khándesh cut wood and bamboos, and remove them together with other forest produce from the Sátpuda forests, in the exercise of their conceded privileges; and local demands were thereby satisfied.

II.—WORKING OF THE YEAR.

(*a*). Communications and Buildings.

51. The Divisional Forest Officer, West Khándesh, spent a small sum of Rs. 6-12-0 in repairing the Kalambari forest road in the Pimpalner Range. Beyond this nothing has been done by this Department in connection with the construction of roads.

52. The following is a brief account of the new works and repairs to existing roads, &c., undertaken during the year by the Public Works Department at the cost of the Provincial Service Budget, the original projects having been started either at the suggestion of, or with the concurring opinion of the Forest Department.

The Executive Engineer, Khándesh Division, has made a commencement of the road from Warsa to Waghai. This road is designed with the object of connecting the minor States in the Dángs with Násik and Khándesh, and of facilitating the traffic of the timber coming down from the Dángs forests. The actual work done during the season from January to June, when work is possible in such an unhealthy and malarious part of the Dángs, is about 1½ miles, and the expenditure incurred is Rs. 5,164-10-2.

The Haste-Barke road in the Peint Táluka of the Násik Division has been finished, except the surfacing, to three miles, and was extensively used during the year for timber traffic.

In the Ahmednagar Division, two roads—one from Randha to Sarmad and the other from Jámgaon to Kotul—were in progress during the year. Two unfinished slab drains on the first were commenced and nearly completed, while on the second road three masonry culverts have been constructed.

No new roads were undertaken during the year in the Poona Division, but the Ghoda-A'mbegaon road, the work of which was started in 1888-89, was completed during the year 1892-93 at a cost of Rs. 52,402.

53. A detailed account of the works undertaken during the year at the cost of the Provincial Service Budget, by the Public Works Department, at the instance of, and under sanctions given by, the Conservator of Forests, from the discretionary grant of Rs. 2,000 which has been sanctioned in Government Resolution No. 183 A.—622, dated 18th April 1892, Public Works Department, is exhibited in the following statement:—

No.	Executive Officer.	Nature and Locality of Work.	Amount sanctioned.
			Rs.
1	Executive Engineer, Násik ...	Providing planked shutters to three glazed windows to the Range Forest Office at Nándgaon	22
2	Do. do. ...	Extending the godown of cook-room of the Divisional Forest Officer's bungalow	274
3	Do. do. ...	Providing a coach-house to the Divisional Forest Officer's bungalow	184
4	Do. Poona ...	Improvements to the Range Forest Office at Indápur	91
5	Executive Engineer, Sátára ...	Making roof of the Range Forest Office, Pátan, water-tight, and for providing a door	46
6	Do. Khándesh ...	Stone paving to the Range Forest Office, Bhusával	60

No.	Executive Officer.	Nature and Locality of Work.	Amount sanctioned.
			Rs.
7	Executive Engineer, Khándesh ...	Concrete floor to the store-room, &c., of Range Forest Office, Sindkheda ...	38
8	Do. Násik ...	Providing iron barred frames to the windows of the Divisional Forest Officer's bungalow	30
9	Do. Poona ...	Fixing a small gate in the verandah of the Range Forest Office at Vadgaon ...	19
10	Do. Sátára ...	Providing two new windows to the Office of the Divisional Forest Officer, New Adálat Váda	63
11	Do. Ahmednagar	For paving the floor of the Hirda Depôt at Koltembhe	190
12	Do. do.	Do. do. at Talo ...	190
13	Do. do.	Do. do. at Shirpunje	190
14	Do. Khándesh.	Substituting a teak board window in place of a glass one to the Range Forest Office at Navápur	7
		Total ...Rs.	1,404

54. The following additional works were constructed by the Public Works Department during the year at the cost of the Provincial Service Budget :—

A forest depôt house on a sanctioned plan and estimate has been constructed at Karanjali, in the Násik Division, at a cost of Rs. 1,515.

The construction of the Range Forest Office at Vadgaon in the Poona Division, which was commenced in 1891-92, was completed during the year by the Executive Engineer, Poona, and a record room for the Divisional Forest Officer, Poona, was built in the Haveli Mámlatdár's kacheri.

The Executive Engineer, Sátára, constructed stabling for two horses near the forest bungalow at Lingmala at a cost of Rs. 339, which amount was transferred to the Provincial Service Budget from the Forest Budget under the orders of Government.

55. The following table gives the expenditure incurred by the Divisional Forest Officers in building rest-houses, temporary depôt houses, forest guards' huts, *mandows* or sheds for temporary depôt establishments, &c. :—

No.	Division.	Amount.		
		Rs.	a.	p.
1	East Khándesh	392	8	0
2	West Khándesh	1,559	14	5
3	Násik	125	8	0
4	Ahmednagar	.....		
5	Poona	20	0	0
6	Sátára	98	0	3
7	Sholápur	2	8	0
	Total ...	2,198	6	8

(*b*). Protection of Forests from Injury.

(*1*). *General Protection and Breaches of Forest Law.*

56. 85 cases in respect of which complaints had been laid before Magistrates against forest offenders by Forest Officers were awaiting trial at the opening of the year ; and 1,439 new cases were sent up to the Criminal Courts during the fifteen months, making 1,524 cases on the registers. Out of these, 1,402 cases were disposed of during the year, with the result that convictions were obtained in 1,009 cases, and 393 cases were acquitted ; 2,436 persons were convicted and punished, and 1,267 persons escaped under the 393 acquitted cases. At the close of the year, 122 cases were pending.

57. A comparison between the number of cases tried by Magistrates for breaches of the forest law during the year under report and the year preceding, with the results of trials, is given in the following table :—

No.	Division.	1891-92.		1892-93.		Percentage of Failures.	
		Prosecutions.	Acquittals.	Prosecutions.	Acquittals.	1891-92.	1892-93.
1	East Khándesh ...	44	8	71	15	18·1	21·1
2	West Khándesh ...	76	18	80	13	23·6	16·2
3	Násik	118	18	136	42	15·2	30·0
4	Ahmednagar	166	36	188	37	21·6	19·6
5	Poona	241	58	618	201	24·0	32·5
6	Sátára	105	27	206	60	25·7	29·1
7	Sholápur	176	55	103	25	31·2	24·2
	Total ...	926	220	1,402	393	23·7	28·0

58. As the above figures under 1892-93 cover a period of fifteen months, the following statement, which furnishes the figures from 1st April 1892 to 31st March 1893, and consequently gives a comparison for an equal period of time to that of 1891-92, *viz.* twelve months, is entered :—

No.	Division.	1891-92.		1892-93.		Percentage of Failures.	
		Prosecutions.	Acquittals.	Prosecutions.	Acquittals.	1891-92.	1892-93.
1	East Khándesh ...	44	8	52	11	18·1	21·1
2	West Khándesh ...	76	18	58	9	23·6	15·5
3	Násik	118	18	127	40	15·2	23·6
4	Ahmednagar	166	36	165	31	21·6	18·7
6	Poona	241	58	543	172	24·0	31·6
6	Sátára	105	27	142	45	25·7	31·6
7	Sholápur	176	55	90	22	31·2	24·4
	Total ...	926	220	1,177	330	23·7	28·0

In the East Khándesh Division the number of prosecutions has risen by 8 only, and the percentage of failures has also risen from 18·1 to 21·1. The cause of the increase is that several cases of evasion of payment of duty on foreign timber imported into Khándesh were successfully prosecuted this year, while in the preceding year they had been disposed of under Section 67 of the Forest Act. The reason for the rise in the percentage of failures * * * is ascribed to the prosecution witnesses, who had previously made statements incriminating the accused, retracting when examined before Magistrates.

There is a decrease in the number of prosecutions in the West Khándesh Division for the twelve months ; and the percentage of failures has fallen from 23·6 to 15·5.

In the Násik Division the number of new cases in twelve months has risen from 118 to 127, and the percentage of failures is 8·4 greater than that of the preceding year. Of the 42 cases acquitted during the forest year, 34 were dismissed for want of sufficient proof, 7 as trivial, and 1 case, in which the offenders were charged for cutting bábul firewood in the forests of Belgaon Dhúga of the Násik Range, where there was unauthorized cutting of over 250 bábul and other trees, was dismissed, for the reason that the Magistrate held that under the Act No. V of 1890 to amend the Indian Forest Act, 1878, "Firewood" is not included in the definition of either "Timber" or "Forest Produce."

There is a decrease in the number of prosecutions undertaken during the first twelve months in the Ahmednagar Division; and the percentage of failures has gone down from 21·6 to 18·7.

In the Poona Division, 549 new cases were sent for prosecution up to the 31st March 1893, or more than double the number of the preceding twelve months; and the cause for this is explained to be the orders contained in paragraph 6 of Government Resolution No. 8626, dated 30th November 1892, in the Revenue Department, according to which 321 cases under Section 25 (*d*) of the Forest Act, "any person who trespasses or pastures cattle or permits cattle to trespass," were, instead of being compounded as heretofore under Section 67 of the Forest Act, required to be sent up to the Magistrates.

The percentage of failures has risen from 24·0 to 31·6, and the Divisional Forest Officer, Mr. Wilkins, states that this increase is due to the erroneous interpretation given by the Subordinate Magistrates to paragraph 3 of Government Resolution No. 7907, dated 6th October 1892, in the matter of the treatment of "trivial offences." A large number of cases of deliberate and wilful infraction of the forest law, sent up by the Divisional Forest Officers for trial, was let off by the Magistrates, because the "damage" had been assessed by prejudiced and interested village panchas at ridiculously low amounts, which had as little bearing on the gravity of the offence, seeing that it was malicious and intentional crime, as was its pretence to represent the real amount of injury done to forestry.

The most serious offences that occurred were in the villages of Nigdale, Kondwal and Terungan on the ghâts in the A'mbegaon Range, where, during the months of April, May and June 1892, very extensive tracts of evergreen forests covering an area of between 500 to 900 acres were cut down and burnt by certain villagers for dalhi cultivation. The true facts of the destruction done to the Government forests were suppressed by both the forest subordinates and local village officers, and reports made to the Divisional Forest Officer stated that a few loads of ráb of small value had been cut, with the result that the offenders got off in some cases with petty fines inflicted by the local Magistrate, and in others by offering small sums by way of compensation for their offence to the Divisional Forest Officer under Section 67 of the Forest Act. The true state of affairs was brought to light through anonymous petition, which raised suspicion, and led the Divisional Forest Officer, and the Conservator, to visit the scene of destruction. The conduct of the forest subordinates concerned has been considered departmentally, and the case was reported fully to the Collector for disposal by him, and it was under that officer's consideration when the year closed.

The next serious case worthy of mention was the cutting and removal of 425 teak and 366 junglewood trees in the forest of Kikwi in the Purandhar Range. No report of this theft was made by the local forest subordinates, but the Range Forest Officer came to hear of it, and instituted inquiries with the help of the Mámlatdár, Mr. R. K. Sháháne, and the Police, and in the prosecutions that followed succeeded in securing convictions in 18 out of the 29 cases that were tried. The round guard and one beat guard were reduced, and one beat guard was dismissed.

A third case of importance was in the Haveli Range, where the Pátil of Nande cut 120 teak rafters in the forest of that village, and on being prosecuted was fined Rs. 100 *plus* Rs. 50 damages, or, in default, one month's rigorous imprisonment.

The cases prosecuted in the course of the first twelve months of the forest year in the Sátára Division exceeded by 37 the number of the year before, and the percentage of failures shows a slight increase. The Divisional Forest Officer complains that some of the Subordinate Magistrates deal out very lenient law to the offenders, and dismiss them on the grounds that "the offences were not intentionally committed, and the accused had no intention of setting the forest on fire when he was smoking in the forest, and therefore is not guilty;" and in cases in which men of position, such as pátils, &c., are accused, they are dismissed, on the plea that they are not the sort of men to trespass cattle. It is no wonder, then, that cases which are fully scrutinized by the Divisional Forest Officer before

they are sent for trial, should go to increase the percentage of failures, for the Forest Act does not recognize intention, and the Divisional Forest Officer in his treatment of forest offences is guided by the Forest Act, while the Subordinate Magistrates ignore the forest law on the point, and require "intention" to be proved.

In the Sholápur Division there is a very marked decrease in forest crime for which no explanation is given : in twelve months the number of cases prosecuted before the Magistrates went down to 90, and in fifteen months to 103 from 176 in 1891-92. The people of the district cannot have learnt so suddenly to keep their hands from picking and stealing timber and other forest produce, the property of Government; and also to give up their habits of trespassing and illicitly pasturing their cattle within reserved forests. It is much more likely that the Divisional Forest Officer has refrained from prosecuting a number of offences of a certain class, on the grounds of their "triviality" in the light of the value of damage done to the forest, or of the value of the timber or other forest produce stolen, in the estimation of a panch or committee of villagers, which class of offences used previously to be sent up before the Magistrates for trial.

59. The following statement gives a classification of the cases disposed of during the forest year :—

No.	Division.	Offences relating to the misappropriation of				Total.
		(a) Timber.	(b) Firewood.	(c) Other Minor Produce.	(d) Other Offences.	
1	East Khándesh ...	14	17	...	40	71
2	West Khándesh ...	24	20	...	36	80
3	Násik	53	...	1	82	136
4	Ahmednagar ...	7	21	3	157	188
5	Poona	71	102	8	437	618
6	Sátára	39	16	43	108	206
7	Sholápur	1	5	1	96	103
	Total ...	209	181	56	956	1,402

60. The classification of the cases compounded under Section 67 of the Forest Act during the year is given below, as desired in Government Resolution No. 7232, dated 12th September 1892, in the Revenue Department :—

No.	Division.	Offences relating to the misappropriation of				Total.
		(a) Timber.	(b) Firewood.	(c) Other Minor Produce.	(d) Other Offences.	
1	East Khándesh ...	3	212	7	444	666
2	West Khándesh ...	55	58	36	426	575
3	Násik	505	...	1	557	1,063
4	Ahmednagar	4	131	1	2,624	2,760
5	Poona	90	366	15	1,806	2,277
6	Sátára	173	121	74	373	741
7	Sholápur	...	37	13	1,515	1,565
	Total ...	830	925	147	7,745	9,647

61. An account of cases prosecuted and of cases compounded by Divisional Forest Officers under Section 67 of the Forest Act, during the year of the report,

is given in the subjoined statement, as directed in Government Resolution No. 3527 of 2nd May 1884, in the Revenue Department:—

No.	Division,	Taken into Court.		Compounded under Section 67 of the Forest Act.		Total Number of Cases.	
		1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
1	East Khándesh ...	44	71	1,570	666	1,614	737
2	West Khándesh ...	76	80	1,248	575	1,324	655
3	Násik	118	136	1,472	1,063	1,590	1,199
4	Ahmednagar	166	188	2,941	2,760	3,107	2,948
5	Poona	241	618	2,063	2,277	2,304	2,895
6	Sátára	105	206	923	741	1,028	947
7	Sholápur	176	103	1,608	1,565	1,784	1,663
	Total ...	926	1,402	11,825	9,647	12,751	11,049

62. And a comparison of compounded cases and of the sums of money accepted by way of compensation for the forest offences over the two corresponding periods of twelve months each, is presented in the following table:—

No.	Division.	1891-92.		1892-93. 1st April 1892 to 31st March 1893.	
		Cases compounded.	Amount of compensation.	Cases compounded.	Amount of compensation.
			Rs.		Rs.
1	East Khándesh	1,570	5,717	634	2,273
2	West Khándesh	1,248	5,720	575	2,493
3	Násik	962	4,828	1,056	6,416
4	Ahmednagar	2,941	5,291	2,275	4,510
5	Poona	2,061	3,858	2,210	7,756
6	Sátára	923	1,688	542	899
7	Sholápur	1,608	2,165	1,305	1,754
	Total ...	11,313	29,267	8,597	26,101

63. The total of the sums which were accepted under Section 67 of the Forest Act, in the several divisions of the Central Circle, during the forest year, by way of compensation for forest offences, is given in the following statement, as ordered in Government Resolution No. 8738, dated 24th December 1887, in the Revenue Department. The amounts were credited without any deduction in respect of any rewards which may have been given to persons who may have contributed to the detection of the offenders, under Receipts V (*c*), in accordance with the system of classification of forest accounts prescribed in the list published with Government Resolution, in the Revenue Department, No. 2420, dated 8th April 1891 :—

No.	Division.	Amount.
		Rs.
1	East Khándesh	2,300
2	West Khándesh	2,493
3	Násik	6,275
4	Ahmednagar	4,816
5	Poona	8,044
6	Sátára	1,254
7	Sholápur	1,837
	Total ...	27,019

64. The following statement shows the number of compounded cases, in connection with which rewards were paid to the persons who had contributed to the detection of the cases, together with the amounts of the rewards thus paid, under the orders of Government Resolution No. 8568, dated 16th December 1887, in the Revenue Department:—

No.	Division.	Number of compounded cases.	Rewards amounting to											Amount	Remarks.
			Re. 1.	Rs. 2.	Rs. 3.	Rs. 4.	Rs. 5.	Rs. 6.	Rs. 7.	Rs. 8.	Rs. 9.	Rs. 10.	Above Rs. 10.		
														Rs.	
1	East Khándesh... ...	56	14	16	10	2	11	...	1	...	...	1	1*	171	*Actually paid, Rs. 18.
2	West Khándesh ...	2	...	1	...	...	...	...	...	...	...	1	...	12	
3	Násik	188	93	42	19	11	13	5	1	1	1	...	2†	343	†Below Rs. 15.
4	Ahmednagar	1	...	...	...	...	...	...	...	...	...	...	1	20	
5	Poona	271	181	59	8	6	9	5	...	1	...	2	...	402	
6	Sátára	403	435	47	8	2	...	1	...	...	...	...	...	261	
7	Sholápur...	...	...	...	...	...	...	...	...	...	...	...	...	...	
	Total ...	1,011	723	165	45	21	33	11	2	2	1	4	4	1,209	

It will be perceived that out of a total number of 9,647 cases compounded with a total sum of Rs. 27,019, rewards amounting to Rs. 1,209 have been paid in 1,011 cases. The cost of rewards is charged in the forest accounts to A. IX (*c*) against Budget provision.

65. As directed in paragraph 11 of Government Resolution No. 1899, dated 13th March 1891, a statement showing the number of cases sent up to the Divisional Forest Officers for consideration under Section 67 of the Forest Act, and their subsequent disposal, is given below:—

No.	Division.	Number of cases sent up to Divisional Forest Officers for consideration under Section 67 of the Forest Act.	Number of cases disposed of under Section 67 by acceptance of compensation.	Number of cases not entertained, but let off with a warning.	Number of appeals against the proceedings.	Manner in which appeals have been disposed of.	Remarks.
1	2	3	4	5	6	7	8
1	East Khándesh ...	707	666	41	.....	.....	
2	West Khándesh ...	575	575	.....	.....	.....	
3	Násik..	1,592	1,063	529	.....	.....	
4	Ahmednagar... ...	2,760	2,760	.....	.....	.....	
5	Poona	3,124	2,277	847	.....	.....	
6	Sátára	741	741	.....	.....	.....	
7	Sholápur	1,565	1,565	.....	.....	.....	
	Total ...	11,064	9,647	1,417	.....	.....	

66. The classification of the sums of money accepted under Section 67, in amounts of rupee one and upwards to the maximum permitted by the law, is, as directed in Government Resolution No. 1899 of 13th March 1891, in the Revenue Department, given in the following statement:—

No.	Division.	Number of cases in which compensation was fixed at rupees																								
		1 and under.	2 "	3 "	4 "	5 "	6 "	7 "	8 "	9 "	10 "	11 "	12 "	13 "	14 "	15 "	16 "	17 "	18 "	19 "	20 "	21 "	22 "	23 "	24 "	25 "
1	East Khándesh..	351	88	45	40	33	20	7	9	4	12	6	7	6	3	4	3	1	3	1	..	2	1	1	1	4
2	West Khándesh..	239	99	57	27	29	16	10	11	10	18	4	8	7	2	5	4	..	5	1	2	2	1	..	..	2
3	Násik	216	171	111	100	75	71	62	34	31	38	2	28	5	9	23	2	5	2	2	29	3	..	..	3	12
4	Ahmednagar ..	1,543	546	254	123	114	53	34	24	16	14	7	3	5	3	3	2	..	2	3	1	1	2	..	1	2
5	Poona	818	466	249	171	165	85	68	52	16	53	18	34	11	9	4	17	2	8	3	3	3	6	3	..	3
6	Sátára	301	157	69	47	28	17	8	5	3	3	6	1	1	1	2	..	..	..	..	1	..	..	..	..	..
7	Sholápur	1,135	272	74	29	22	7	8	6	5	2	..	..	1	..	2	..	..	1	..	..	..	..	..	..	..
	Total ..	4,693	1,799	859	537	466	269	107	141	85	140	43	81	36	27	43	28	8	21	10	36	11	10	4	5	23

No.	Division.	Number of cases in which compensation was fixed at rupees																										Total.
		26 and under.	27 "	28 "	29 "	30 "	31 "	32 "	33 "	34 "	35 "	36 "	37 "	38 "	39 "	40 "	41 "	42 "	43 "	44 "	45 "	46 "	47 "	48 "	49 "	50 "		
1	East Khándesh..	2	2	..	..	..	..	1	..	1	1	1	..	..	1	..	1	2	..	..	..	..	..	..	..	3		666
2	West Khándesh..	1	1	..	..	..	2	..	..	1	1	..	1	..	1	..	..	..	..	..	..	..	1	..	..	7		575
3	Násik	..	1	3	..	10	1	..	..	1	1	4	..	..	..	6	1	..	..	..	..	..	..	..	1	..		1,063
4	Ahmednagar ..	..	..	..	1	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..		2,760
5	Poona	3	1	1	..	2	..	1	1	..	..	—	..	..	..	1	..	..	..	..	..	..	..	..	..	..		2,277
6	Sátára	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		741
7	Sholápur.. ..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	—	..	..	..	..	..	..		1,565
	Total ..	6	5	5	1	13	3	2	1	2	4	6	1	1	2	7	2	2	...	..	..	..	1	..	1	10		9,647

The very large falling of, *viz.* 57 per cent., in the number of cases dealt with under Section 67 of the Forest Act, in the East Khándesh Division, during the twelve months 1st April 1892 to 31st March 1893, compared with the twelve months preceding, is to be accounted for by offences of illicit grazing not being treated, as before, under Section 67, subsequent to the issue of Government Resolution No. 8626, dated 3rd November 1892: and some cases of breach of the rules published under Section 41 of the Forest Act were let off with a warning instead of being disposed of under Section 67.

In the West Khándesh, Násik, and Poona divisions no case was compounded under Section 67 after the receipt, by the Divisional Forest Officer, of Government Resolution No. 7907, dated 6th October 1892. And in the other divisions, Sátára and Sholápur, very few cases were disposed of under this provision of the forest law after November 1892.

67. The District Magistrate of Poona has issued circular instruction to his subordinate Magistrates to decline to issue process if there has been inordinate delay in bringing complaints before them in connection with forest offences, and has told them that a delay of over six weeks from the date of the offence should ordinarily be considered "inordinate delay;" at the same time he has specially warned them that when from the papers the delay seems to be satisfactorily accounted for, they are not to hesitate to issue process. A period of limitation cannot, it would seem, be prescribed legally, and a Magistrate could not well refuse to take up a complaint on such grounds. But the order has undoubtedly worked beneficially in the Poona District, for it has stirred up the forest subordinates to be more prompt and punctual in treatment of forest crime and to avoid procrastinating and vexatious delays, which undoubtedly contribute to the failure of prosecutions, by giving time to the accused persons to square hostile witnesses, and by making such ancient history of the offence, that the witnesses, who mostly belong to the uneducated classes, forget the facts, and under cross-examination by astute vakils come hopelessly to grief over salient points in the prosecution evidence.

68. Every forest offence is required to be reported to the Divisional Forest Officer by the Range Forest Officer, and the order in writing of the former has to be obtained before a prosecution can be instituted; and this precaution is of itself productive of delay in lodging complaints. At the same time it gives time for the accused persons to get at the prosecution witnesses; and it is undoubtedly one of the chief reasons for a considerable percentage of acquittals in prosecuted cases, for the witnesses who have deposed against the accused when the preliminary inquiries were made, turn round and tell a different tale when placed in the witness box before the trying Magistrate. However, notwithstanding these disadvantages, the precaution is judicious, and works beneficially on the whole; but it should be taken into consideration when a Forest Officer is being judged as to his treatment of forest offences by the percentage of acquittals of cases prosecuted in his division.

(2). *Protection from fire.*

69. The following statement gives the results of fire conservancy in the several divisions of the Central Circle during the forest year, as compared with

those of the preceding year of twelve months, and it should be remembered that two hot seasons or periods of dry months are included in the forest year when the forests are more especially liable to be fired:—

No.	Division.	Forest area placed under protection against fire.		Acreage burned.		Percentage burned.		Expenditure incurred in rupees.	
		1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
1	East Khándesh	510,796	516,315	33,766	48,788	6·6	9·4	176	281
2	West Khándesh	1,088,625	1,076,136	639,312	288,000	58·7	26·7	226	904
3	Násik	818,499	818,387	11,321	7,870	1·3	0·9	128	166
4	Ahmednagar	541,524	541,814	374	2,898	0·06	0·5	...	...
5	Poona	476,645	476,169	3,805	6,300	0·79	1·3	11	8
6	Sátára	438,684	444,844	993	2,057	0·22	0·4	...	6
7	Sholápur	177,716	178,035	222	860	0·12	0·4	...	...
	Total ...	4,052,489	4,052,200	689,793	356,773	17·02	8·8	541	1,365

70. It will be perceived that there was a marked improvement during the forest year notwithstanding the disadvantages mentioned above. But the year has been a favourable one for fire conservancy, as storms of rain occurred frequently in different parts of the Deccan between November 1892 and June 1893, and the grass and inflammable undergrowth was often wetted and naturally protected against consumption by fire. No special measures beyond the burning, by forest guards with the help of hired labour here and there, of fire-paths on the sides of high roads, cart-tracks and foot-paths and outer boundary lines of reserved forest and surrounding camping grounds, &c., were adopted in any of the divisions of the Central Circle, except in the two divisions of Khándesh, where, in addition to these ordinary precautions, internal fire-lines were burnt across the more extensive forests in the Sátpudás and elsewhere, at intervals of about 1,000 feet. The system of reporting, by means of a post card, to the Collector, immediately on the occurrence of a fire in any forest, has been introduced in all the divisions of the Central Circle, as directed in Government Resolution No. 757, dated 27th January 1893, in the Revenue Department.

71. In the East Khándesh Division 49 fires occurred, and 48 of these burnt only 9,788 acres of reserved forest, but one disastrous fire in the Sátpudás traversed no less than 39,000 acres and raised the total area burnt in the division beyond the acreage of the preceding year. This fire originated through careless smoking on the part of three Tádvi Bhils, who had gone into the reserved forests of the Yával Sátpudás to exercise privileges of cutting and removing timber, of which they are in enjoyment as a tribal concession. A gale of wind was blowing at the time, and although upwards of 300 men attacked the fire, it could not be overcome until it had travelled over a wide extent of forest; the fire-paths were of very little impediment to its course. The three men were prosecuted, with the effect that one was convicted and sentenced to rigorous imprisonment for one month and to pay a fine of Rs. 50, and the case against the two was still pending when the year closed. Out of the 48 fire cases of the division the offenders were discovered and prosecuted in 14, with the result that convictions were secured in 8 (one of these got off subsequently on appeal), 2 were acquitted, and 4 were awaiting trial at the end of the year.

72. Fire conservancy in West Khándesh has been very successful. Fire traces of a total length of 1,565 miles were burnt at a cost of Rs. 885, and during the fifteen months 122 fires were reported, and they are estimated to have burnt 288,000 acres against 116 fires of 639,312 acres of the preceding year. In connection with 25 fires, the persons who caused them were discovered; 1 case was compounded and 24 were prosecuted, with the result that 35 men were convicted and punished with fines aggregating Rs. 194 and with rigorous imprisonment of one month and three days in the aggregate. * * *

In reviewing the divisional administration report the Collector has recorded that "the system of internal fire-paths has been a success; for though there were more fires this year than last, the area burnt was not half so much, showing that the fires did not spread as they did last year, and it is the spreading of a fire that the paths are intended to prevent."

73. Fires occurred in all the ranges of the Násik Division, but there has been a great improvement in the vigilance and activity of the forest subordinates, and also of forest villagers, in discovering and attacking them.

74. In the Ahmednagar Division 78 fires were started against 29 of the previous year; and they overran 2,898 acres, or about eight times more space than during the previous year. The damage done to forest property by these fires was estimated at Rs. 169; and in connection with this the Collector of Ahmednagar has recorded: "The Collector had occasion to remark when forwarding certain returns of forest fires that the loss of produce assigned to this cause was out of all proportion small when compared with the estimates of damage done to the same class of produce by trespassing cattle. The object of the forest subordinates in depreciating the former kind of loss, was of course obvious, and the Collector was glad to find that the Conservator caused the correction of this disingenuousness."

75. Fire conservancy in the Poona Division has not been so satisfactory as could be desired, the area traversed having been 2,495 acres greater than that of the previous year. The fires have chiefly taken place in the ghát tálukas; and in the majority of cases have been due to carelessness and negligence in ráb-burning, the villagers taking no reasonable precautions to prevent fire spreading from their fields to the adjoining forests. Several cases in which carelessness and negligence in ráb-burning were traced to the offenders, were sent up for trial, but the Magistrates refused to convict, on the ground that no rules have been passed under Section 25 (*b*) of the Forest Act as amended. * * *

The most important case of firing the forest occurred in the Khed Range, where one Bálárám Bhaurám, an agent of the Commissariat hay contractor, was apprehended in the act of firing the grass in the Kohinde Budruk reserved forest, on or about the 8th of May 1893, in order to conceal malpractices in connection with the exploitation of grass, and he was sent up for trial before the 2nd Class Magistrate of Khed, who convicted and sentenced the accused to six months' rigorous imprisonment, and a fine of Rs. 100. On appeal, however, to the Sub-divisional Magistrate, the case was committed to the Sessions, where, unfortunately, the accused was acquitted.

76. In the Sátára Division an area of a little more than 3 square miles was burnt by 97 fires, of which the Jávli Range had 20, Mahábaleshvar 16, Pátan 15, Shirála 6 and Wái 5; thus 62 fires broke out in the ghát ranges and the remainder in the eastern ranges. The forest subordinates were very watchful and active; for in 41 out of the 97 fires the incendiary was caught: of these 9 were let off with a warning, as boys were the culprits: in the other 32 cases prosecutions were ordered, and at the end of the season 13 convictions and only 1 acquittal had been recorded. 18 cases remained awaiting trial.

77. A little more than a square mile was burnt in the Sholápur Division; and the cause of the fires is attributed to careless smoking by persons passing through reserved forests, or to sparks from passing railway engines.

78.—The entire area in charge of the Forest Department, whether it be legally constituted reserved forest, or protected forest, or provisionally notified forest lands, is brought under fire-protection directly it is placed in the care of the forest subordinates.

(3). Regulation of Grazing and Protection from Cattle.

79. Grazing is regulated under the rules passed by Government in their Resolution No. 3595 of 23rd May 1890; and for this purpose portions of forest areas are kept open during a part of the year, and are available to all local cattle, including agricultural cattle and other privileged cattle which are permitted to graze in such portions, some free of charge, some on payment of fees on the permit system. Cattle from outside the district also are admitted to graze on higher rates of fees if the forests can support them. In addition thereto, some "valuable kurans," fodder reserves, the tree growth in which has attained a

sufficient height to be beyond the risk of damage by cattle, are also sold by auction for grazing, for a defined period generally, after the grass crop has been cut by hand and removed.

From the 16th August of one year to the 31st March of the next is generally considered to be the grazing season; and from the 1st April to the 15th August, the close season against grazing, in respect of grazing areas in the forests of the Deccan, with the exception of the Khándesh Divisions, where the close period extends from 1st February to 31st May. Sheep and goats are not allowed to graze over a greater portion of the area open to grazing: and goats are only allowed where sheep are permitted, and then in the proportion of 1 goat to every 50 sheep.

80. The following statement shows the distribution of the areas between closed and open to grazing in the several divisions of the Central Circle, in round numbers :—

No.	Division.	Area open to grazing.	Area closed to grazing.	Total.	Remarks.
		Sq. m.	Sq. m.	Sq. m.	
1	East Khándesh	736	60	796	
2	West Khándesh	916	365	1,281	
3	Násik	811	468	1,279	
4	Ahmednagar	477	369	846	
5	Poona	344	397	741	
6	Sátára	512	181	693	
7	Sholápur	96	182	278	
	Total ...	3,892	2,022	5,914	

81. The following statement shows the number of cattle of different kinds impounded in the several divisions of the Central Circle during the year, under Section 69 of the Indian Forest Act, for trespassing in closed forest reservations and those impounded for grazing in open areas without passes :—

No.	Division.	Kind of area.	Cows and Bullocks.	Buffaloes.	Camels.	Horses.	Asses.	Sheep.	Goats.	Total from, Closed area.	Total from, Open area.
1	East Khándesh	Closed ...	6,777	1,424	...	35	...	318	704	9,258	...
		Open ...	3,672	1,024	...	85	14	37	3,313	...	8,195
2	West Khándesh	Closed ...	9,331	1,562	...	71	...	2,384	2,404	15,802	...
		Open ...	4,795	788	...	47	2	36	888	...	6,506
3	Násik	Closed ...	15,853	1,112	...	184	24	19,274	5,550	41,997	...
		Open ...	5,813	347	...	68	16	10,739	4,842	...	21,825
4	Ahmednagar	Closed ...	38,224	2,695	3	372	59	18,865	14,357	74,575	...
		Open ...	15,461	1,163	...	82	100	19,572	14,701	...	51,079
5	Poona...	Closed ...	14,502	1,563	4	192	68	12,643	7,593	36,565	...
		Open ...	6,458	1,022	...	103	22	9,170	7,813	...	24,588
6	Sátára	Closed ...	13,709	1,429	...	122	44	12,538	2,877	30,718	...
		Open ...	4,996	584	...	20	18	9,032	2,626	...	17,276
7	Sholápur	Closed ...	22,154	1,671	...	95	25	4,487	2,771	31,203	...
		Open ...	7,120	656	...	44	49	3,019	1,974	...	11,862
	Total ...	Closed ...	120,600	11,455	7	1,071	220	70,529	36,256	240,128	...
		Open ...	48,315	5,534	...	449	221	51,655	36,157	...	142,331

82. The East Khándesh Division records a decrease of 54 per cent, in the number of impoundings during the period of 12 months corresponding to the year 1891-92, while extensive seizures of cattle illicitly grazing in 'closed forest,' as well as 'open forest,' were made, and were severely dealt with under Section 67 of the Forest Act; the result being that the people have learnt to refrain from trespassing their cattle in closed forests, and to take out grazing permits for open forests. The nomadic graziers,—Thelaris who used to sweep over the Khándesh district with their large herds, driving their animals into all and any forest areas, without waiting to take permits and obtain a right of entry, and with an utter disregard of rules and regulations, and of the differentiation of closed and open forest,—have

learnt the wisdom of paying their fees beforehand, and taking out the necessary permits, whereby they secure grazing for their animals throughout the grazing season, instead of paying in pound fees and other penalties, in a single day, more than the season's permit fee for a brief spell of stolen grazing. The Collector has remarked: "In this division, as in the other, it is pleasant to find a large reduction in the number of cattle impounded, showing, as it probably does, that the people are getting to observe the rules better."

83. In West Khándesh also there is a steady annual decrease in impoundings: in 1890-91 the number was 45,821; in 1891-92 it fell to 24,500; and in the first twelve months of 1892-93 to 19,220; while between the 1st April and the 30th June 1893 only 3,088 head of cattle had to be sent to the pound.

84. About two-thirds of the total number of cattle impounded in the Násik Division were sheep and goats, the property of foreign graziers: these people establish themselves in foreign territory just beyond the frontier and drive their animals across into reserved forests to graze during the night, and they post scouts to signal the approach of forest guards or forest villagers, when their animals are driven out at once. In one case upwards of 2,500 sheep and goats were caught by forest subordinates and forest villagers grazing in a closed forest, in one night, and were sent to pound: their owners had been warned, frequently, but they maintained stoutly that their animals had not grazed in the reserved forest and did not want to graze there, even when the hoof-beaten track of the sheep and goats leading from their halting place into the forest was pointed out to them, and they were told that the animals had been seen from a distance within the forests: by means of their scouts they managed to evade apprehension, until one night forest guards and British villagers made a long detour through foreign territory, and took the graziers in the rear, catching the whole herd inside the forest, when they were marched off to the village pound. In this way one catch, in one place, in one night, sends up the tale of total impoundings of the year.

85. In the fifteen months of the forest year 1892-93 there has been an increase in the number of impoundings over the record of 1891-92 by 30,581, of which 8,019 were goats and 9,417 were sheep, in the Ahmednagar Division. Nearly 50 per cent. of the animals impounded during the forest year were sheep and goats.

86. In the same way in the Poona Division there has been an increase in the number of impoundings, which has gone up to 61,153, of which more than one-half or 37,219 were sheep and goats. The Divisional Forest Officer had occasion to bring, specially, to the notice of the Collector the goat nuisance, in the Dhond Range, with a view to the pound fees for these animals being raised.

87. In the Sátára Division the number of cattle impounded during the fifteen months totalled 47,794, of which 58 per cent. were sheep and goats.

88. 43,065 head of cattle were impounded during the forest year in the Sholápur Division, of which 31,203 were taken from closed forests: the number of sheep and goats came to 11,251. In 872 cases warnings were given to the owners of cattle for allowing their animals to trespass within forests.

89. As the year under report embraces a period of fifteen months, there appears to be an increase of 49,819 cattle over the figures of the preceding year, but on comparing the figures of the first twelve months, which gives an equal period of time, it will be found that there has been a decrease in the number of cattle impounded by 11,287 on the record of 1891-92. Of the total number impounded, more than half consisted of sheep and goats—122,184 of the former and 72,413 of the latter.

90. In order to keep out cattle from forests under reboisement, such as exploited coupes, plantations, &c., fences of the crown branches of the felled trees, are constructed, and wire-fencing is also erected in specially selected localities, the wire being purchased from either the Telegraph Department or in the local market.

91. The following sums have been spent in the purchase of wire during the year for use in the ensuing year;—

No.	Division.	Quantity of wire.	Amount.
			Rs.
1	East Khándesh	60 cwts. and 6,000 staples.	1,210
2	West Khándesh	.....	...
3	Násik	79 cwts. and 10,000 staples.	1,533
4	Ahmednagar	55 cwts.	950
5	Poona	.....	...
6	Sátára	.. ...	...
7	Sholápur	187 cwts.	3,028
	Total ...	381 cwts. 16,000 staples.	6,721

The fences previously made were also kept in good order and have proved, it is needless to say, very advantageous.

(c). Improvement of Forest Growth.

(1). Natural Reproduction.

92. The year under report was favourable to natural reproduction, owing to a plentiful and seasonable rainfall generally throughout the Central Circle. In the East Khándesh Division it was very refreshing to observe the myriads of young plants of teak and of other kinds of timber trees resulting from self-sown seeds which appeared in suitable soil, on the bank of the Aner river, and in fire-protected areas, in the Sátpuda and other forests. The Anjan (Hardwickia binata), which does not seed annually or regularly, seeded during the year, and has given an abundant supply of young life in the Transpurna, the Ráver, Sávda, Yával and other reserved forests where this valuable tree predominates. The stools of teak trees which were felled in the forests of the Jámner Range and in the Sátpudás have thrown up vigorous shoots with scarcely any failures.

93. In the West Khándesh Division natural reproduction, which is generally much retarded by the fierce and extensive forest fires, which occur annually, has made a better show than usual, owing to the great reduction in the area of forest fires and also owing to more favourable atmospheric conditions.

94. Where fire-protection and closure against cattle have been effective, natural reproduction in the Násik forests is more conspicuous than elsewhere; however, its advance, except in parts greatly exposed to cattle, is generally satisfactory.

95. Mr. Wilkins, Divisional Forest Officer, Poona, reports that natural reproduction is making sure and steady progress all over his forests. Under the shelter of bushes, young plants of all kinds are to be seen, which have come from seeds deposited by birds and four-footed animals. The young fresh growth of nimb (Melia azadirachta) and of sandalwood (Santalum album) also, in places where the seedlings receive protection against cattle, and where they obtain moisture and nourishment and shade, is most marked in the drier and stonier high lands in the eastern ranges of the division; while in the western ranges, and more particularly along the Ghâts, the new growth in the moist forests is very promising.

96. In the Sátára Division there is nothing special to record: the forests which do not suffer from cattle are making steady improvement in every way. In order to supplement the work of Nature in scattering seeds, the forest guards of the permanent establishment collected 164 khandis, 26 maunds, 23 pounds of seeds of trees specially valued for timber and fuel, and broad-casted them, during the rains, over 23,022 acres of closed forests.

97. In the Sholápur Division natural reproduction has advanced steadily, grass has increased in density, and self-sown seedlings of nimb and other trees which inhabit this comparatively rainless part of the Deccan, are coming up in fair profusion all over the forests, on uplands as well as on plains.

(2). Artificial Reproduction.

98. In the East Khándesh Division 35 khandis, 14 maunds and 11 seers of seeds collected mostly by forest guards, were sown over 4,550 acres of reserved forests; of which 1,133 acres were in prepared pits, in 573 acres the seeds were dibbled into the ground, 843 acres were ploughed up in the first place, and over the remaining 2,001 acres seeds were broad-casted. Mr. Madan reports that these operations have met with varying success according to soil and situation; in some places, bábul seedlings have appeared in dense masses; in other localities awla (Phylanthus emblica) and tarwad (Cassia auriculata) cover the ground, but the germination of teak (Tectona grandis) has been generally sparse, as it usually takes more time than one rainy season to make its appearance; some slips of Jatropha curcas planted by forest guards have established themselves.

99. In the West Khándesh Division in the two nurseries, one in Dhulia and the other at Dahiwel in the Pimpalner Range, a large number of young plants are raised yearly for transplanting into the neighbouring forests, but the results are inconsiderable. The exploited coupes of the season were sown up. Each forest guard is required to prepare and sow 1,000 pits, and to broad-cast one thousand acres of the forests, within his beat yearly; and where constant attention is given to the young plants, and they are well protected against cattle and fire, a fair measure of success has been obtained.

100. In the Násik Division 616 acres were sown chiefly with bábul seeds in the reserved forests on the plains in the Násik Range. Some portions were pitted over, and others were ploughed. The coupes of the year in the Násik, Igatpuri, Sinnar and Nandgaon ranges have been sown up; in some of them the ground was previously ploughed, and in some the seeds were dibbled, while elsewhere they were broad-casted. Some of the old plantations are flourishing, such for example as Belgaum Dhaga and Pathardi in the Násik Range, Sawandgaon, Dabli, Aghar and Wadner in the Málegaon Range, Pada in the Dindori and Pimpalgaon Mori in the Igatpuri Range: but artificial cultivation generally is not so successful as might be the case if cattle were kept out constantly from the areas which have been specially treated in successive years.

101. In the Ahmednagar Division 191 acres 15 gunthas representing the exploited coupes of the year in the bábul reserved forests were ploughed and sown, principally with imported Sind bábul seed; and as reported by the Range Forest Officers, the results of these sowings are generally satisfactory; many of these forests being situated on the banks of large rivers. Nimb seeds were dibbled into the ground inside bushes over 9,875 acres at intervals of 10 feet in most of the ranges, and the Range Forest Officers report the results to be good: 919 acres were dibbled over with teak seeds at distances of 10 feet apart, in the Shrigonda, Karjat, Shevgaon and Sangamner ranges, but the seeds have not germinated so freely as hoped for. In lands opened to sheep grazing in the Nagar, Párner, Shrigonda, Karjat, Ráhuri and Sangamner ranges, 2,835 acres were dibbled over with tarwad (Cassia auriculata), and seeds of other kinds, the young growth from which sheep religiously avoid, at distances of 10 feet apart; and the results of this operation are said to be fairly successful. In the Nagar, Shrigonda, Karjat, Jámkhed, Shevgaon, Nevása Ráhuri and Kopargaon ranges, 3,433 acres of rich black soil were broad-casted with bábul seed in the established manner, a large handful of seed being scattered at every 4 paces or 10 feet by a gang of labourers moving in a line 10 feet apart from each other; and the Range Forest Officers report that the seeds of the previous year have germinated very freely, while those of the year under report have only come up sparsely at present. 117,643 pits were dug by paid labour in the Nagar, Párner, Shrigonda, Karjat, Shevgaon, Nevása, Ráhuri, Kopargaon, Sangamner and Akola ranges, and nimb (Melia azadirachta), sadara (Terminalia tomentosa), teak (Tectona grandis), &c. were sown in them, and the condition of the seedlings

is good. In 40,159 acres of reserved forests beat guards with their own hands prepared and placed seeds in 120,677 small pits and also in 1,016,876 holes, each just large enough to bury a seed, and in addition to this 15,000 acres were broad-casted by them: 255 khandis of seeds were collected by forest guards within their beats, free of all cost.

The plantations at Dongargan and Hanumantgaon are maintained, and are making good progress; 2 mális on Rs. 6 each are employed to look after them.

102. In the Poona Division reboisement operations by means of dibbling, furrow-ploughing, &c., were undertaken with great vigour, paid labour costing Rs. 3,121 being employed. 135,480 pits were thus dug for the reception of seeds; 864½ acres of lands on the flat were plouged and sown; and 400 acres were sown broad-cast. In addition thereto, 133,950 pits covering an area of about 403 acres were made and sown by forest guards, free of cost, with mixed seeds, and 1,617 acres of land containing bushes were broad-casted in places, and seeds of nimb, mango (Mangifera indica), jambhul (Eugenia jambolana) and of other trees of the arid region, were dibbled into the ground. In every range of the Poona Division, seeds were collected by forest guards free of cost, and the quantities of seeds thus collected are returned at 152 khandis, 15 maunds and 27 pounds.

103. In the Sátára Collectorate operations are confined to,—

1. Nursery and plantation proper.
2. Dibbling, &c., of seed.
3. Broad-casting.

A larger amount has been expended than in the previous year, the chief reason for this being the sowing up of all the exploited coupes of the season, so that these compartments may become hereafter fully stocked with a large proportion of seedling trees. In all the ranges, plantation works were undertaken at the cost of the forest budget, which amounted to Rs. 1,941, and on the whole the year was a favourable one for the growth of vegetation, and it was pleasing to observe a marked improvement in many of the plantations.

104. In the Sholápur Division the measures taken in the matter of re-afforestation, by paid labour, have been that the smaller kinds of seeds have been broad-casted; and the larger kinds, such as ain (Terminalia tomentosa), teak, mango, &c., have been dibbled into the soil over a surface of about 4,500 acres. Beat guards, each of them without any extraneous assistance, have prepared 100 pits for mangoes 2′×2′×2′, and 2,000 pits 1′ diameter and 1′ deep for other seeds, within the forests in their beats; and the total extent of their cultural works has spread over 165 acres 38 gunthas sown by pitting, 61⅛ acres sown by dibbling, and nearly 14,857 acres sown broad-cast. Each guard is required to gather and bring in 784 lbs. of mixed seeds during the season; 112 khandis, 26 maunds and 10 seers of seeds were thus collected by forest guards; while 80 khandis, 5 maunds and 11 seers were purchased locally, and 5 khandis, 25 maunds and 5 seers were imported into the division. The Divisional Forest Officer reports the forest guards' cultural work to be promising.

105. The cultural operations undertaken by forest guards, as a part of their ordinary duties, cannot but have a marked effect upon the rewooding of the country within the Central Circle. Each forest beat, and all the forest areas in every division are divided into beats, so that not an acre in charge of the Forest Department is left outside a beat, is an unit of plantations; so that reboisement is pushed yearly in as many different localities spread over the face of the country, as there are forest guards in charge of forest-beats.

(3). Early Thinnings.

106. No such operation has been attempted in any division of the Circle.

(4) *Other Operations for the Improvement of the Growing Stock.*

107. All the forest guards cut creepers within the forests of their beats, and they are required to eradicate all prickly-pear which may freshly appear in their forests.

108. In the East Khándesh Division prickly-pear (Opuntia dillenii) was taken out of forests in the Bhusával and Jalgaon ranges at an expenditure of Rs. 8.

109. In the Násik Division Rs. 57-4-6 was paid for the cutting of creepers in the heavy forests of the Peint Range, about 7,268 acres having been worked over. And the eradication of prickly-pear (Opuntia dillenii) was undertaken in forests of the Kalvan and Niphád ranges, wherein 860 acres were freed of this nuisance, making room for a better growth of timber, at a cost of Rs. 791-10-6.

110. In the Poona Division gangs of 6 or 8 men were working at prickly-pear eradication, each gang under a forest guard; and about 83 acres and 25 gunthas of forest lands, densely covered and shut up by it, were cleared in the Junnar, Indápur, Haveli, Dhond, Purandhar, Sirúr and Bhimthadi ranges. The prickly-pear, after being cut up and rooted out, was buried in natural rifts in the ground, and where these did not occur it was stacked in large heaps 10′ × 10′ × 8′ to decompose, when it was burnt.

111. In the Sátára Division an expenditure of Rs. 132-15-0 was incurred in cutting down and uprooting prickly-pear (Opuntia dillenii) in the Tásgaon Range: but each forest guard with his koita or bill-hook severed creepers, and dug up young prickly-pear in the forest of his beat.

112. In the Sholápur Division, where the prickly-pear (Opuntia dillenii) was too heavy for the forest guards to cope with unaided, hired labour had to be employed in its destruction, and about 480,585 square feet were cut out at a cost of Rs. 784.

113. The account of prickly-pear removal may possibly not come properly under the designation "Other operations for the improvement of the growing stock," and it might seemingly more appropriately be termed an operation to make room for growing stock, but it has been entered here, as no other sub-heading has been provided for it.

114. No girdling-operations have been undertaken in any division of the Circle, either for the improvement of the forests, or to facilitate the removal of timber, or to season it on foot at the risk of heart shakes.

(5). Experiments.

115. Seeds of Terminalia chebula, hirda, the valuable myrobolan of commerce, obtained from the Southern Marátha Country, were sown in the Sátpuda hill forests of Khándesh, where the tree is at present unknown, but there has not been sufficient time for germination, as the seed often remains underground for over twelve months before the young seedlings appear. The tree is common in Central India on the high lands of the Sátpudas, and it ought to do well in the Sátpudas of Khándesh.

116. Seeds of Sind bábul were obtained from the Conservator of Forests, Sind, and were sown in the river-side bábul forests in several divisions of the Deccan; no less than twenty bags were thus sown in the Trans-Purna and other forests in East Khándesh; the tree does remarkably well in the Presidency proper.

117. Seeds of sal, Shorea robusta, which the Conservator of Forests, Central Provinces, Jubbulpur Circle, had kindly supplied, were distributed to all Divisional Forest Officers and were sown in June 1893, in selected forest areas in all divisions; it is reported that they have germinated rather sparsely.

118. The following kinds of seeds were procured, through the kindness of the Inspector-General of Forests, from Upper India, and were sent to the Divisional Forest Officers of Násik, Poona and Sátára for experimental sowing on high altitudes in their divisions; the seeds were sown chiefly in the Lingmalá nursery of the Mahábaleshvar Range:—

Pinus longifolia.
Do. excelsa.

and seeds of—

Eucalyptus globulus.
Do. rostrata.
Do. piperita.
Cupressus toralosa.
Do. cashmeriana.
Acacia dealbata.
Do. melanoxylon.

which had been indented for upon the Conservator of Forests, Southern Circle, Madras, and which had been very kindly supplied, were likewise sent to all Divisional Forest Officers for cultivation in selected forests of their respective divisions.

119. As the anjan, Hardwickia binata, seeded very freely in Khándesh during the year, advantage was taken of the opportunity to send from that district considerable quantities of its seeds to the Deccan districts of Ahmednagar, Poona, Sholápur and Sátára, where the tree has not yet been introduced, for sowing in the dried forests, and innumerable seedlings have resulted from this operation: in the Bhámburdá reserved forest near Poona the young anjan plants are very plentiful and healthy.

120. No further experiments have been made with the date palm, the libi dibi and mahagoni, &c.; a few young trees of these kinds remain here and there, the relics of experimental sowings made in past years.

(*d*). Exploitation of Major Forest Produce.

(*1*). *Clear or Regeneration Fellings.*

121. In the East Khándesh Division a clear felling of trees was made in the river-side portion of the Trans-Purna reserved forest, where the bábul (Acacia arabica) is the predominating tree. One compartment of about 97 acres was thus exploited departmentally. Some disforested lands at the foot of the Sátpuda hills in the Yával and Chopda ranges were cleared of all trees, not with a view to regeneration, but to the land being utilized for cultivation; about 3,572 acres were thus cleared, and they yielded large quantities of firewood which was bought mostly for steam cotton factories at Chopda.

122. In the West Khándesh Division a compartment in the Ubhand forest of the Nizámpur Range was exploited under this system, the principal species being kheir (Acacia catechu) and kanchar (Acacia amara). The coupe was subsequently thickly sown up with seeds after the ground had been prepared for their reception.

123. In the Násik Division the teak and other trees in the dalhi numbers of 8 villages in the Kalvan Range and of 1 in the Báglán Range; the teak trees on occupied lands in 13 villages of the Peint Range which were felled and removed by their purchasers; and the departmental firewood fellings in the Somthána reserved forest of Yeola Range, in the Dongrála and Wanput forests of the Málegaon Range, and in the Mulána forest of Báglan, were all clear-fellings; those made in reserved forests were subsequently followed by sowings of seeds in the coupes for reproduction.

124. Of the Ahmednagar Division most of forests in black soil lands on the banks of rivers in the champaign country, wherein the chief tree is the bábul (Acacia arabica), have been divided into 62 forest blocks, and these have, each, been sub-divided into 40 compartments, and one compartment is made into the coupe of the season, wherein the standing stock is sold by auction for the purchaser to fell and remove at his own expense, within a fixed period of time, under prescribed conditions; 27 of these coupes situated in forest blocks extending over lands of 29 forest villages distributed over 8 ranges, representing a total area of nearly 178 acres, which were found to contain 17,024 trees, estimated to yield 56,043 cubic feet of firewood, sold for Rs. 1,902-8-0—a very moderate price, but at the same time not unsatisfactory, seeing that the system is new, and private enterprise in exploiting forests is still in its infancy, and will develop with time.

125. Similarly in the Poona Division, 52 coupes in river-side reserved forests, giving an acreage of 201½ nearly, and containing 17,692 trees, of an estimated yield of 144,991 cubic feet of firewood, sold for Rs. 6,525-12-0. The exploited coupes were then fenced with thorns, or wire, and were either fully ploughed over, or ploughed in lines 5 or 10 feet apart, according to their circumstances, and were sown with bábul and other seeds.

126. In like manner in the Sholápur Division ten compartments, of which 6 were in the Sholápur, 2 in the Mádhe, and 1 in the Pandharpur ranges, of

277 acres and 14 gunthás in the aggregate, sold for Rs. 11,077; some of the prices were very high, as the following will show :—

Range.	Name of Forest Block.	Area of Coupe.		Price		
		A.	g.	Rs.	a.	p.
Sholápur	Sholápur	33	4	5,141	0	0
	Irvádi	60	9	1,363	0	0
	Hátur	26	34	1,226	0	0
	Hodgi	31	15	153	0	0
	Márdi	32	37	62	0	0
	Karkal	16	39	1,802	0	0
Mádhe...	Papnus	26	1	262	0	0
	Mhaisgaon	34	2	850	0	0
Pandharpur	Karkamb	15	33	218	9	0
	Total ..	277	14	11,077	0	0

(2). Selection Fellings.

127. There were no operations of this class in the Khándesh, Násik, Ahmednagar and Poona divisions. In the Sátára District the removal of dead and dying timber from the reserved forests on the plains on the left bank of the Krishna River in the Tásgaon Range, may possibly come under this description, but the operation is rather one of improvement; and in the Sholápur Division a selection felling was made in the Sadar-Bázár reserved forest at Sholápur, where 18,735 cubic feet of firewood, mostly bábul, were removed departmentally, and sold by auction for Rs 2,102, giving a very high profit.

(3). Improvement fellings and (4) Coppice fellings.

128. The fellings of teak in which regeneration is mainly dependent upon coppice shoots, but not entirely so, as seeds are sown within the coupes in prepared patches, and seedling trees are consequently grown, may be justly called a mixture of both of these systems;—improvement because the axe is directed with a view to remove old diseased ill-growing trees and to better the forest; —and coppice because the major portion of the trees, which are felled, reproduce by shoots from the old roots in the ground, and this is the mainstay of the reproduction.

129. In the East Khándesh Division, the teak forests in the Patna glen, and at Wadale also of the Chálisgaon Range; in Lahasur, Pimpalgaon and Gortale in the Jámner Range; were thus worked.

130. In the West Khándesh Division, the Dhulia and Sindkheda firewood fellings, and the Nizámpur teak fellings, were all improvement. Anjan (Hardwickia binata) is the principal tree in the Dhulia firewood forest, and as it coppices well, the good growth of new shoots is assured by trimming the stools with an adze, as the felling operation with the axe does not leave them flush with the ground, and clean and smooth.

131. In the Násik Division, twelve coupes in 4 ranges were worked for firewood, the species being mostly bábul.

132. In the Ahmednagar Division, bábul trees were exploited departmentally in the ranges of Nagar, Ráhuri, and Kopargaon for the improvement of seven forest blocks. 137 trees, containing 1,289 cubic feet of wood, were removed at a cost of about Rs. 1½ per 100 cubic feet, and the wood sold at Rs. 7-8-0 per 100 cubic feet; teak and jambhul forests in five ranges were worked departmentally on the coppice system, when 29,443 trees, which yielded 25,250 poles with 111,614 cubic feet of firewood, were felled; the cost of the operation amounting to Rs. 1,212-3-0, while the wood sold at auction for Rs. 8,547-5-9.

133. In the Poona Division, the teak and junglewood forests in the ranges bordering the Western Ghâts were worked with a view to cutting out all unsound and inferior wood, and to produce good, vigorous coppice shoots from the stools of the felled teak trees which are mostly small of girth, short and

deformed. All young, sound and promising trees are reserved to develop, and to be natural shedders of seed. About 44,734 trees were felled in the forests of 6 ranges, producing 61,638 poles and miscellaneous pieces, with 29,690 cubic feet of firewood, which cost Rs. 2,858 to exploit, and realised Rs. 26,544 at auction sales.

134. One compartment in each of 9 different forest blocks, spread over six ranges in the Sátára Division, the aggregate area of the coupes being about 615 acres, was exploited departmentally, the timber being almost entirely teak: of which 9,456 pieces with 69,407 cubic feet of firewood, which had cost Rs. 2,296 to bring out to sale depôts, were sold at auction and realised Rs. 9,665. All young and promising growth was left to increase, and the reserves totalled about 4,11¼ teak, intermingling with 11,068 junglewood trees.

135. In the Sholápur Division, no forests are worked on either of these systems.

(*5*). *Unregulated Fellings.*

136. In the East Khándesh Division, the fellings made by the Bhils in exercise of their rights or privileges in the Sátpudá forests come under this denomination. There is absolutely no control, save the reservation of a few 3 or 4 favoured kinds of trees: they go into the forests and cut at will, removing what they like, and leaving to rot and burn what they like: they are not regulated by permits, are not restricted to particular or defined areas, nor tied down to any season or period of time. And the natural result is the depletion of certain, the more accessible, portions of the forests.

137. Under this heading too come all the timber fellings on the Bhil settlements in the West Khándesh Division, which are made in the Shirpur, Taloda, Akráni, Nandurbár, Navápur and Pimpalner ranges, the object being to cut as many trees as will sell, and to clear the lands for cultivation or unrestricted use by their occupants as soon as possible. The Bhil privileges in this division are likewise unregulated fellings in the fullest interpretation of the term.

138. Fellings of trees to meet free grants in all divisions are unregulated save by the demand; they have to be made at any time convenient to the grantees and in localities most suitable to them.

139. In the clearing of boundary lines of reserved forests in the Peint Range of the Násik Division, and in the several ranges of the Sátára Division, the fellings are only regulated by the growth on the ground to be cleared. In the same manner the clear fellings of teak and other royal trees upon occupied lands in the Násik, Poona and Sátára divisions are not regulated by any plan dictated by forestry.

(*e*). Extraction and Transport of Major Forest Produce by land and water.

140. Water carriage for the transport of forest produce is nowhere resorted to in the Central Circle at present. The timber and firewood cut departmentally in the several divisions are stacked at temporary sale depôts, either inside or outside the boundaries of the forests, generally in sites accessible to carts, and the removal of the wood subsequent to its sale is left to the purchasers. It is far better that private enterprise should concern itself with the distribution of timber and forest produce to satisfy the wants of local supply and the requirements of trade than the Forest Department should embark in such speculations. However, cases do happen when the market will not come to the forests, and the Forest Department have necessarily to convey timber and other forest produce long distances to obtain a market, but no cases of the kind have occurred in the Central Circle during the year of this report. When timber and other forest produce is sold on foot, or on the trees to purchasers, they are required to make their own arrangements for its felling, collection, extraction or exploitation.

141. Permanently maintained roads and fair-weather cart tracks have been constructed in all directions in the country of the Central Circle, and there are but few forest areas which have not been opened out to vehicular communication. The railways are freely utilised for the distribution of timber and other forest produce after such have been brought to the railway lines.

142. In West Khándesh the Tápti River is used by timber dealers and others who purchase from the Forest Department for floating timber from the Navápur Range to Surat. And it will possibly be found practicable to utilise the Narbada as a water-way, for the produce of the Akráni forests to be conveyed to the markets of Gujarát when these forests are fully worked. At present, how-

ever, paucity of establishments prevents the Akráni forests, which have only recently been settled under the Forest Act, being exploited to any considerable extent.

143. Bamboos are exploited and removed by purchasers and consumers from the forests of all the divisions of the Central Circle, except Sholápur, in headloads, cartloads, &c.

(*f*). Exploitation of Minor Forest Produce.

(*1*). *Extraction of Fodder.*

144. In the *West Khándesh Division*, there are seven valuable kurans, that is, portions of reserved forest the grass of which is sold annually to be cut and removed, but no grazing is allowed in them: 3 of these are in the Dhulia and 4 in the Sindkheda Range; their total area is 20,827 acres. In 1891-92 the right of taking the grass from them sold for Rs. 7,079, and in 1892-93 it went up to Rs. 9,055.

Grass can be removed from all open forests on payment of fees, except by privilege-holders, who may take it free; and from closed forests also by order of the Divisional Forest Officer. The fees charged are—

	Rs.	a.	p.
Cartload	0	2	0
Headload	0	0	3
Animal load	0	0	6

and during the forest year the undermentioned quantities of grass were removed from the West Khándesh forests:—

Cartloads	21,736
Headloads	5,131
Animal loads	691

145. In *East Khándesh* the valuable kurans were farmed for Rs. 16,049 against Rs. 19,159 of the previous year; and 20,490 cartloads were taken from closed forests. The rainfall of the season had been favourable to the growth of grass, which was luxuriant, and consequently the demand on the forests was not so great, as there was abundance of grass on lands outside the forest boundaries.

146. In the *Násik Division*, the purchasers of the grass are allowed to cut and remove the grass after the 15th September, and then to graze cattle on the stubble; there are 32,542 acres of valuable kuran the revenue derived from which amounted to Rs. 15,832, which is slightly less than of the year before.

147. In the *Ahmednagar Division* the grass in about 45,532 acres of the reserved forest was sold for extraction by hand, and realised Rs. 2,092: while 5,061 acres are placed free of charge at the disposal of the Commissariat and Remount Departments for grass supply as under—

Forest.	Area.	Estimated Value.
Given to Remount Department.	A. g.	Rs. a. p.
Kaudgaon	51 25	82 9 7
Jamb	45 11	72 7 8
Narayen doho...	34 4	54 8 11
Chichondi-Patil	596 10	954 0 0
Total ...	727 10	1,163 10 2
Given to the Commissariat Department.		
Kapurwádi	828 17	1,000 0 0
Deogaon	126 20	1,250 0 0
Shendi	272 36	2,000 0 0
Sesevádi	557 12	2,000 0 0
Imámpur	733 34	2,250 0 0
Gunjale	346 37	750 0 0
Manjursumbha	535 17	1,500 0 0
Ghospuri	822 14	1,250 0 0
Ratadgaon	110 0	1,250 0 0
Total ...	4,333 27	13,250 0 0
Grand Total ...	5,060 37	14,413 10 2

148. The revenue from grass in the *Poona Division* came to Rs. 2,923-5-0; no grazing is permitted in the valuable kurans; 19,118 acres of reserved forest in the neighbourhood of the city of Poona are placed at the disposal of the Commissariat Department at Poona, for the supply of hay to feed Government cattle and horses belonging to the Military Department. Some of the best grass-producing lands are thus disposed of: the value of the grass on account of which no charge is made upon the Military Department is estimated to be Rs. 25,850, which is a dead loss to the forest revenues, and a loss of Rs. 12,925 to the Provincial Service Budget.

149. In the Sátára Division it is estimated that about 3,500 tons of fodder grass were extracted from the forests. The area of the valuable kurans which were sold for grass cutting was about 10,458 acres, and they realized about Rs. 5,900.

150. The grass in all the closed forests of the *Sholápur Division* is put up to auction sale for extraction by hand, and a fair proportion of it is sold; about 35,936 acres found purchasers, and Rs. 15,065 were obtained in this way.

(*2*). *Grazing.*

151. In all open forests in the Khándesh District grazing is allowed on payment of fees; no grazing is sold by auction in the two divisions of Khándesh. The rates of fees charged are as under :—

		Rs.	a.	p.
For Cultivators.				
For each buffalo		0	8	0
„ cow, horse or ass		0	4	0
„ sheep		0	1	0
For Professional Graziers.				
For each buffalo		1	0	0
„ cow, &c.		0	8	0
„ sheep		0	2	0
„ goat		0	8	0

In the wilder portions of the district the cultivators' cattle pay half-fees, but privilege-holders, Bhils and inhabitants of forest settlements, graze their cattle free of charge.

152. In the *East Khándesh Division* the whole of the Sátpudá forests, with the exception of 3,613 acres, and all the open forests in the South Tápti ranges, were made available for grazing, and 191,771 head of cattle of different kinds entered and pastured therein on payment of fees, while to 8,898 animals free grazing was given.

The grazing receipts came to Rs. 54,640, or Rs. 5,096 less than of the year before; the decrease being attributable to fewer animals having been sent from foreign territory to find grazing in the East Khándesh forests, owing possibly to a good grass season over the border.

153. In the *West Khándesh Division* 387,465 animals were grazed inside the forests during the twelve months ending 31st March 1893, and 60,841 animals paid fees during April, May and June, so that altogether 451,306 animals grazed on payment of fees aggregating Rs. 98,267, while 24,862 animals enjoyed free grazing of the value of Rs. 5,574.

154. In the other divisions of Násik, Ahmednagar, Poona, Sátára and Sholápur the schedule of grazing fees is as under :—

Kind of Animals.	Permits issued by Village Officers.				Permits issued by Forest Officers.		
	Cultivators' Cattle.			Professional Graziers.			Outside Cattle.		
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.
Buffaloes, each	0	8	0	1	0	0	1	0	0
Cows	0	4	0	0	8	0	0	8	0
Horses and asses	0	4	0	0	8	0	0	8	0
Sheep	0	1	0	0	2	0	0	2	0
Goats	0	2	0	0	4	0	0	4	0

155. In the *Násik Division* 172,848 cattle of different kinds, including 55,370 sheep and goats, grazed in the forests on payment of fees, and 49,552 cattle,

including 4,592 sheep and goats in the Peint Range, enjoyed free grazing. The fodder grass and grazing revenue amounted to Rs. 59,377-3-3, or nearly Rs. 8,220 less than of the previous year. The decrease is said to be owing to foreign cattle having come in fewer numbers to find grazing in the Násik forests.

156. The valuable kurans of the *Ahmednagar Division* extend over 3,901 acres, and the right of grass and grazing in them sold for Rs. 3,297, while 279,519 acres of open forests were made available for grazing on payment of fees, by which a sum of Rs. 33,650 was realized. There was considerable illicit grazing in the forests, owing to village cattle-owners neglecting to take out grazing permits, and to village officers neglecting to see that their villagers who own cattle and habitually graze those animals in the forests, were supplied with grazing permits, so that a sum of Rs. 4,730 was recovered under Section 67 of the Forest Act for damage done by illicit grazing. But there is a marked improvement in this respect. 108,817 cattle of the bovine species and 54,653 cattle of the ovine kinds were grazed within the forests, and these figures show an increase of 17,147 of the former, and 13,850 of the latter, on the figures of 1891-92, which is said to be owing to the fact that villagers are recognizing that it is more profitable to them to take out grazing permits on payment of the low rates of fees demanded than to fail to do so, and graze their animals illicitly, at the risk of the cattle being caught and impounded. Nearly 65,342 acres of forests distributed over 9 ranges are specially assigned for sheep grazing; and 54,651 of these animals took advantage of this provision on payment of fees.

157. In the villages along the Western Ghâts of the Poona Division the right of grazing in the open forests is sold by auction; and thus out of a total grazing revenue amounting to Rs. 40,139-11-6, Rs. 11,546-3-0 were realized from fees and Rs. 28,593-8-6 by auction sales. The revenue shows a decline of Rs. 2,067 compared with the figures of 1891-92. In this division the number of cattle given free grazing is very large indeed, amounting to 105,188, and exceeding by no less than 14,992, the number of cattle in respect of which fees were paid for forest grazing. The village officers are seemingly very liberal in their differentiation of cattle between the privileged and the paying: and they are also seemingly very backward in issuing permits to village cattle-owners, and connive with the latter in defrauding the grazing revenues.

158. Grazing is permitted on contract in 37,013 acres and 36 gunthás, comprising the best pasturing portion of the reserved forests in the *Sátára Division*, into which no sheep or goats are permitted. There are, in addition thereto, 271,153 acres of open forests throughout the division made available to grazing where fee-paying and free cattle are admitted to graze side by side. The more valuable pasture lands realized Rs. 20,264-3-6 at the auction sale of grazing; the valuable kurans reserved for exploitation of grass by hand realized Rs. 5,900-7-9, while fee grazing gave a revenue of Rs. 8,710-7-6, and a sum of Rs. 1,885-7-3 was obtained by sale of grass from closed forests. It is a remarkable fact that the number of cattle grazed on payment of fees was only 76,758 in the open forests, while the very large number of 290,419 cattle were given free grazing. Like in the Poona Division so in the Sátára Division the differentiation of privileged and paying cattle has been made with extreme liberality; indeed it is doubtful whether there has been adequate scrutiny of the lists, or proper supervision of the proceedings of the village officers in this matter, who are seemingly very reluctant to issue grazing permits and to collect grazing fees from village cattle-owners, for 47,994 cattle were impounded for illicit grazing, of which number 17,276 were caught in open forests, and it would have been more profitable to their owners to have taken out permits.

159. The *Sholápur Division* has returned a comparatively large revenue, amounting to Rs. 24,086-13-8, from grass and grazing. The valuable kurans spread over 35,936 acres in 52 villages, and the grass in them was sold for exploitation by hand. The open forests, in addition to the kurans in which free and free grazing was allowed, measured 46,066 acres, wherein 27,345 cattle grazed on payment of fees, and 11,383 cattle were permitted to enter on free permits of the value of Rs. 2,416-8-0. The total grass and grazing revenue amounted to Rs. 24,086-13-8—a figure which compares very favourably with the results shown in the Poona and Sátára divisions, the total forest area of the former being 741 square miles and of the latter 693, square miles, against 278 square miles of the Sholápur Division

160. The cattle census of the different districts comprising the Central Circle will be seen in the following statement :—

No.	Collectorate.	Cows and Bullocks.	Buffaloes.	Horses.	Asses and Mules.	Sheep.	Goats.	Camels.	Elephants	Total.
1	Khándesh	746,849	194,360	24,812	8,299	226,720		7	...	1,201,047
2	Násik	514,561	73,009	15,040	3,150	120,950	157,900	1	...	884,611
3	Ahmednagar ...	677,599	57,379	24,251	8,188	325,823	256,024	8	...	1,349,272
4	Poona	490,932	68,199	13,373	5,248	224,472	148,447	103	...	950,774
5	Sátára	516,225	152,659	15,415	2,648	353,711	115,547	4	...	1,158,209
6	Sholápur	435,733	64,307	12,896	3,906	249,252	133,841	...	...	899,935
	Total ...	3,381,899	609,913	105,787	31,439	1,276,208	811,759	123	...	6,443,848
						226,720				

(3). Miscellaneous Produce.

161. Under this heading come flowers, fruits, honey, wax, surface soil, rock and minerals, reeds, oil, bark, &c., &c.

Rosha oil (Andropogon schœnanthus) is manufactured in the Khándesh and Násik districts from a particular lemon grass of great fragrance which grows wild in the forests. The contract is sold by auction or tender, and the number of furnaces to be erected, and the rate to be charged per still, are arranged and specified in the contractor's agreement. The revenue derived from this source amounted to about Rs. 15,098-14-6.

162. Hirda nuts, fruit of the Terminalia chebula, are collected in the moist forests along the Western Ghâts where the tree grows in profusion.

In the Násik Division the right of collecting and taking the nuts from the Government trees in the forests during the season is sold by auction, forest by forest, and is knocked down to the highest bidder; the purchaser pays in kind, and not in money, and the nuts, which are paid in at the forest-depôts, are then sold by auction or tender.

In the Ahmednagar Division the hirda nuts are brought from the forests to forest depôt houses centrally situated by forest villagers. The outturn was very small—only about 54 khandis, 8 maunds and 16 pounds, each khandi being of 784 pounds. The cost amounted to Rs. 582-11-3, while the nuts sold for Rs. 745-11-0. There has been a steady decline in the hirdas brought to the forest depôts since 1888-89, and no doubt it is greatly due to pilfering from the forests. The quality of the nuts this season was bad owing to late rains, and consequently the selling price was comparatively very low; it declined from Rs. 73-4-0 in 1891-92 to Rs. 45.

In the Poona Division, hirdas are exploited on the share system, the right is sold by auction, and the purchase-money is paid in kind; and in this way 169 khandis, 16 maunds and 2 pounds were brought into the forest depôts, and were subsequently sold for Rs. 3,679-1-4. Compared with the previous year there is a decided falling off both in quantities and in prices, the season having been a bad one.

In the Sátára Division a large quantity of hirda nuts was brought to the different forest depôts along the ghâts by the forest villagers, who were paid at fixed rates; 824 khandis, 16 maunds and 16 pounds were thus received, the deshi khandi of Sátára equalling 1,920 pounds. The price paid for these nuts to the forest villagers amounted to Rs. 6,268-4-11, which must be a very appreciable addition to their income or other means of livelihood; subsequently the nuts were sold for Rs. 16,945-1-0. By dryage and shrinkage the loss amounted to 206 khandis, 22 maunds and 13 pounds, or 19·8 per cent., which is undoubtedly large; the price was indifferent, as it represented a fall of over 12 per cent. on the selling prices of the previous year.

163. "*Tarwad bark*" of the Cassia auriculata is worked on a rotation of five years, and is sold in the Poona, Sátára and Sholápur divisions for exploitation by the purchasers. Other miscellaneous produce is removed in the same way.

CHAPTER III.

GROSS YIELD AND OUTTURN OF FOREST PRODUCE.

I.—DEPARTMENTAL OPERATIONS.

(1).—Timber.

164. The outturn, in cubic feet, of timber exploited departmentally from the forests of the different divisions of the Central Circle, with the cost incurred and the amount realized by its sale, during the forest year under report, compared with the results of the year preceding, is given in the following statement:—

No.	Division.	1891-92.			1892-93.		
		Timber in the rough.	Cost.	Receipts.	Timber in the rough.	Cost.	Receipts.
		C. ft.	Rs.	Rs.	C. ft.	Rs.	Rs.
1	East Khándesh	19,532	1,339	10,448	18,740	1,273	10,152
2	West Khándesh	145,812	4,158	48,985	141,025	4,044	63,192
3	Násik	26,802	206	3,103	15,894	72	1,125
4	Ahmednagar	35,190	1,261	7,977	64,514	1,215	7,873
5	Poona	50,785	3,088	26,130	61,638	2,877	26,544
6	Sátára	20,041	1,470	13,618	13,545	1,154	9,058
7	Sholápur	931	5	90	...	...	...
	Total ...	299,093	14,527	1,10,351	315,356	10,635	1,17,944

165. It should be remembered that although the figures of 1892-93 cover a period of fifteen months, the exploitations which took place during the last three months were comparatively inconsiderable, and of no great value.

166. In the East Khándesh Division the departmental fellings of teak (Tectona grandis) were not so extensive as during 1891-92; the greater portion was obtained from the clearances effected upon disforested lands in the Chopda and Yával ranges: but owing to higher prices obtained at the auction-sales the difference in recipts is trifling.

167. Departmental operations in timber in the West Khándesh Division were chiefly restricted to the teak (Tectona grandis) and blackwood (Dalbergia latifolia) fellings which were carried on in the Bhil settlements or in revenue waste lands all over the division, except in the Nizámpur Range. The timber fetched better prices than ruled the year before; and hence the increase of revenue upon that of the preceding year.

168. Departmental operations were undertaken, as usual, in the Deccan divisons of Násik, Ahmednagar and Poona, and the variations both in cost and receipts, except in the Násik District, where a smaller quantity of timber was felled, are so small as to require no special explanation.

169. The difference in outturn and receipts in the Sátára Division was due to reduced fellings: large quantities of teak-timber standing upon occupied lands were being sold, and therefore it was deemed advisable to decrease the volume of departmental fellings in the forests so as not to glut the market.

170. In the Sholápur Division there were no departmental operations, as all the timber exploited was sold standing in the forests, to be felled and removed by purchasers.

(2). Firewood.

171. The following statement gives the outturn of firewood including the loppings of teak (Tectona grandis), bábul (Acacia arabica) and other trees felled departmentally in the several divisions of the Central Circle, together with the

expenditure incurred, and the amount realized, compared with the results of the year preceding :—

No.	Division.	1891-92.			1892-93.		
		Firewood.	Cost.	Receipts.	Firewood.	Cost.	Receipts.
		C. ft.	Rs.	Rs.	C. ft.	Rs.	Rs.
1	East Khándesh	404,910	2,999	14,230	1,022,985	6,480	29,778
2	West Khándesh	385,562	1,836	11,014	431,766	2,407	12,433
3	Násik	227,984	1,150	3,795	129,463	677	3,322
4	Ahmednagar	154,818	...	755	111,614	18	635
5	Poona	81,081	356	1,796	45,365	184	836
6	Sátára	244,920	1,343	4,230	376,341	2,207	4,910
7	Sholápur	15,130	100	1,293	18,735	109	2,103
	Total ...	1,514,405	7,784	37,113	2,136,269	12,082	54,017

172. The increase in the outturn of firewood in the East Khándesh Division is chiefly due to very extensive clearances of trees from disforested lands in the Chopda and Yával ranges. The bábul-wood (Acacia arabica) felled in the Edlabad Range fetched a very high price; and the firewood cut in the Chopda Range was all bought up by the local ginning factories and steam presses, but the firewood in the Yával Range failed to obtain the price expected for it, and consequently it remained on hand at the close of the year.

173. In the West Khándesh Division the departmental fellings of firewood were confined mainly to three species which predominate, *viz.*, anjan (Hardwickia binata), kheir (Acacia catechu) and bábul (Acacia arabica). The demand for firewood of these kinds in the town of Dhulia more particularly is very considerable.

174. In the Násik, Ahmednagar and Poona divisions the firewood operations and their results are approximately the same as of the year preceding.

(3) Other Minor Produce.

175. The subjoined statement exhibits the results of the departmental collection of hirda fruit (Terminalia chebula) made during the year in the divisions of Násik, Ahmednagar, Poona and Sátára, compared with those of the preceding year :—

No.	Division.	Yield.		Cost.		Receipts.		Remarks.
		1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	
		Kh. m. lbs	Kh. m. lbs.	Rs.	Rs.	Rs.	Rs.	
1	Násik	49 0 0	39 4 8	21	21	1,431	773	
2	Ahmednagar	100 3 20	54 8 16	852	583	3,100	784	
3	Poona	265 5 8	.....	...	...	6,081	...	
4	Sátára	741 10 13	824 16 16	5,097	6,268	19,409	16,945	
	Total ...	1,155 19 13	918 1 12	5,970	6,872	30,021	18,502	

176. No other minor produce was collected departmentally.

177. In the Násik Division the outturn of hirdas was very poor, owing to a blight which attacked the flowers, and the price obtained compared very unfavourably with the preceding year's prices: this is attributed to the inferior quality of the fruit owing to the effects of the blight.

178. The collections of hirdas brought to the forest depôts in the Ahmednagar Division were also very small, for the crop on the trees was an indifferent one; there has, however, been a steady decrease, ever since 1888-89, in the quantities of hirdas brought to the forest depôts in the Akola Range, owing, seemingly, to the nuts being purloined from the Government trees in the forests and illicitly exported from the district. The Koli villagers, who inhabit the forest villages bordering the Syhádri mountains in the moist forests where the Terminalia chebula abounds, find it to be a profitable venture to rob the trees in the Government forests of their fruit and to sell the latter to village

shop-keepers and money-lenders, and sometimes to carry the nuts themselves to railway stations in the Násik and Thána districts for sale; and it is very difficult indeed to detect and apprehend them in the act. The Kolis, moreover, are lawless and violent, and the forest guards are not generally very ready to tackle them in the forests. Dealers from the Junnar Táluka of the Poona District come to the Akola frontier, and tempt the forest villagers to bring and sell to them illicitly acquired hirdas; and in the same way, on the north side, dealears from Násik induce the villagers to bring stolen hirdas to the Ghoti Station on the G. I. P. Railway. The large number of hirda trees on private lands in the Akola forest villages facilitate the robbing of the Government trees in the forests; and until effective control over hirdas being moved from villages and from the range, in head loads and by carts, is enforced by a system of passes under the rules of Section 41 of the Forest Act, it will not be possible to stop the smuggling that goes on. The Collector has recorded his opinion that "the short hirda crop is due to pilfering."

179. In the Sátára Division the quantity of hirdas brought to the departmental depôts was much greater than of last year, but the selling rates were very low, and consequently the revenue derived from this service was very much below the estimate.

II.—REMOVAL OF PRODUCE BY PURCHASERS.

180. The following statement shows the outturn, in cubic feet, of the timber removed from the forests of the several divisions of the Central Circle, by purchasers at their own expense and the amounts realized, compared with the results of the year preceding:—

No.	Division.	1891-92.		1892-93.	
		Timber in the rough.	Amount realized.	Timber in the rough.	Amount realized.
		C. ft.	Rs.	C. ft.	Rs.
1	East Khándesh	213,000	4,354	255,105	6,024
2	West Khándesh	213,750	8,834	158,189	17,300
3	Násik	641,262	33,488	567,541	30,346
4	Ahmednagar	305	158	...	267
5	Poona	193,774	235	1,413	1,395
6	Sátára	2,230	801	25,023	12,341
7	Sholápur	129	176	302	11,155
	Total ...	1,264,450	48,096	1,007,573	78,828

181. In the two divisions of the Khándesh Collectorate some standing trees upon disforested lands were sold to be felled and removed by the purchasers, but the larger portion of the exploitation from the forests was made by privilege-holders on permits on the fee system; and the quantities of timber thus removed were greater than of last year, so that the receipts compare favourably with the results of that year.

182. The revenue under this sub-heading in the Násik Division is, for the most part, derived from teak (Tectona grandis) trees sold standing for being felled and removed upon occupied lands outside the boundaries of the reserved forests in the Peint Range. The teak trees on the cultivation lands in groups of villages are sold yearly, and a complete group was offered for sale this year, but the demand was weak, and the offers were low, and therefore, as many villages as had been put up for sale were not sold, but a few were held back; thus there is a decline apparent both in the volume of timber and in the revenue.

183. The quantity of timber removed from forests on payment of fees prescribed in Government Resolution No. 8494, dated 14th December 1887, by the residents of the 44 ghát villages of the Akola Range of the Ahmednagar Division was comparatively larger, and consequently the receipts were also greater.

184. The timber removed by purchasers in the Sátára Division consisted chiefly of teak, royalty trees, which are sold at Re. 1 per tree upon lands occupied for cultivation outside the forest boundaries, and as the demand for these trees was greater this year than last, the revenue is larger.

185. The coupe sales system in the Sholápur Division was very successful. The bábul forests on the banks of rivers and streams in the open plain country have been blocked, and divided into compartments, and some of the latter have been converted into coupes for the sale of the standing timber which has been grown during the last 20 years. The results of some of these sales may be seen in the following figures :—

Range.	Name of Forest.	Area in Acres.	Price.
			Rs.
Sholápur ...	Sholápur Coupe No. 2	33	5,141
Do. ...	Irvádi Budruk Coupe No. 1	60	1,363
Do. ...	Karkal and Lánwgi Coupe No. 1	17	1,802
Do. ...	Hátur Coupe No. 1	27	1,226
Do. ...	Hodgi do. 1	31	153
Do. ...	Márdi do. 1	33	62
Mádhé ...	Pápnus do. 1	26	262
Do. ...	Mhaisgaon do. 1	34	850
Pandharpur ...	Karkamb do. 1	16	218
	Total ...	277	11,077

These results are highly satisfactory; and they point to the very high importance of sylviculture in the champaign country of the Deccan in the great demand for wood.

186. This statement shows the quantity of firewood removed by purchasers, and the revenue obtained thereby, both by sales of coupes and by issues of permits on payment of fees :—

Division.	Firewood in cubic feet.		Receipts in Rupees.	
	1891-92.	1892-93.	1891-92.	1892 93.
East Khándesh...	1,135,280	1,299,200	9,459	10,711
West Khándesh	167,900	167,900	3,394	8,542
Násik	90,568	331,704	1,381	3,869
Ahmednagar	62,797	81,843	3,480	3,846
Poona	42,849	184,543	8,315	8,002
Sátára	9,854	20,596	468	325
Sholápur	1,692	1,585	4,337	491
Total ...	1,510,940	2,087,371	30,834	35,786

187. The following statement exhibits the bamboos which were removed by purchasers from the forests of all the divisions of the Central Circle except Sholápur, both under contracts and on permits, in head-loads, cart-loads, &c.:—

Division.	1891-92.				1892-93.			
	Bamboos removed.			Amount Realized.	Bamboos removed.			Amount realized.
	Cart-loads.	Head-loads.	Number.		Cart-loads.	Head-loads.	Number.	
				Rs.				Rs.
East Khándesh	...	...	407,845	4,674	...	...	1,131,212	10,122
West Khándesh	...	...	171,782	2,600	...	...	13,1253	4,731
Násik	...	9,989	196,203	4,702	585	...	266,637	6,189
Ahmednagar	...	...	32,847	342	...	...	46,578	773
Poona	...	...	148,422	1,540	...	...	142,151	1,477
Sátára	...	1,968	14,675	329	...	9	53,416	1,110
Total ...	...	11,957	971,774	14,187	585	9	1,771,247	24,402

188. The subjoined statement exhibits the realizations from "*minor forest produce*," including hirda (Terminalia chebula), stones, earth, thorns, fruits, rosha oil (Andropogon schœnanthus), karvi, tarwad bark (Cassia auriculata), tembhurni and apta leaves, &c., removed by purchasers from the forests, but not including the receipts by sale of grass or of the right of grazing or derived from grazing permits, compared with the results of the previous year:—

No.	Division.	Amount, 1891-92.	Amount, 1892-93.
		Rs.	Rs.
1	East Khándesh	1,208	1,665
2	West Khándesh	8,097	15,785
3	Násik...	4,544	1,774
4	Ahmednagar	1,370	1,479
5	Poona	7,414	4,634
6	Sátára...	3,340	3,045
7	Sholápur	541	67
	Total ...	26,514	28,449

III.—FREE GRANTS OF FOREST PRODUCE.

189. The following is a comparative statement of free grants of timber which have been made by Revenue Officers in almost all cases during the last three years:—

No.	Division.	1889-90.	1890-91.	1891-92.	1892-93.
		Rs.	Rs.	Rs.	Rs.
1	East Khándesh	...	...	210	...
2	West Khándesh	45	142	714	458
3	Násik	267	217	177	274
4	Ahmednagar	297	10	139	...
5	Poona	539	519	709	628
6	Sátára	354	699	...	136
7	Sholápur	...	...	...	...
	Total Rs....	1,502	1,587	1,949	1,496

IV.—PRODUCE REMOVED BY RIGHT-HOLDERS AND UNDER PRIVILEGES.

190. It is quite impossible to arrive at any approximately correct estimate of the value of the timber and other forest produce removed by right-holders and concessionaries under the privileges granted to them, because the removals are not tied down to any particular portion of a forest and to any prescribed season, and are not regulated by a system of permits or passes. Suffice it to say that the quantities of timber, firewood, grass, and other minor produce removed from the forests by the wild tribes for private consumption and for barter or sale are very large.

191. The free grazing which has been allowed within the reserved forests as a privilege to agricultural and milch cattle has been controlled by issue of free grazing permits, so that it is possible to give the number of cattle entered in the privileged lists in each division, and the value of the grazing conceded to them, and these particulars will be found in the following figures:—

No.	Division.	Number of Cattle.	Value of grazing.
			Rs.
1	East Khándesh	8,898	2,587
2	West Khándesh	24,862	5,574
3	Násik...	49,552	13,541
4	Ahmednagar...	9,093	3,264
5	Poona...	105,188	24,066
6	Sátára	290,419	75,023
7	Sholápur	11,383	2,416

192. It would appear that in the Násik Division a large number of sheep and goats have been admitted to free grazing. As these animals are neither agricultural nor milch cattle, they seemingly ought not to be on the privileged list. In Ahmednagar and Sholápur the differentiation of cattle between paying and free has been made with great care, but in Poona and Satára the privileged list is extravagantly large; and the consequent loss of revenue exceeds a lakh of rupees, whereby the Provincial Funds suffer to the tune of Rs. 50,000 and more.

V.—SUMMARY OF PRODUCE REMOVED FROM THE FORESTS.

193. The following is a summary of produce removed from the forests:—

Description of Material.		Quantity.
Timber	Cubic feet.	1,396,023
Fuel	Do.	6,723,865
Bamboos	No.	1,771,322
Do.	Cart-loads.	585
Do.	Head-loads.	9
Stone	Cart-loads.	29,117
Do.	Cubic feet.	243,926
Thorns	Cart-loads.	4,311
Do.	Cubic feet.	5,040
Do.	Head-loads.	9,329
Manure	Cart-loads.	2,571
Do.	Cubic feet.	14,403
Anjan leaves	Cart-loads.	593
Rosha-oil stills	No.	185
Earth	Cart-loads.	1,427
Karvi	Do.	478
Do.	Head-loads.	2,817
Do.	Cubic feet.	110,411
Reeds	Cart-loads.	865
Sand	Do.	230
Limestone	Do.	1,805
Grass bundles...	...	86,875
Do.	Cart-loads.	227
		Kh. mds. lbs
Hirda nuts	...	986 24 7
Roofing material	Cart-loads.	450
Do.	Head-loads.	858
Aloes	Do.	43
Canes	Do.	400

CHAPTER IV.

FINANCIAL RESULTS.

194. The forest year 1892-93 was a financial success, as will be seen from the following statement, which exhibits a comparison of the results of that year with those of the preceding:—

Year.	Receipts.	Expenditure.			Net Revenue.
		A. Conservancy and Works	B. Establishments.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.
1891-92...	7,48,154	1,32,453	3,42,224	4,74,677	2,73,477
1892-93...	8,23,495	1,60,625	4,27,367	5,87,992	2,35,503
Increase ...	75,341	28,172	85,143	1,13,315	...
Decrease ...	...	...	...	...	37,974

195. The gross revenue of the year exceeds that of its predecessor by Rs. 75,341, while the total expenditure exhibits an increase of Rs. 1,13,315 over the figures of past year, made up of Rs. 28,172 under "A. Conservancy and Works" and Rs. 85,143 under "B. Establishments." In connection with this increase it may be stated that the figures for the year under report represent the results of 15 months, and when the receipts and expenditure for the 3 months of April, May and June 1893, which are respectively Rs. 71,708 and Rs. 1,05,513, are deducted from the total receipts and expenditure for 15 months, the net results for 12 months, when compared with those of the preceding year, show that there was an increase of Rs. 3,633 in receipts, and of Rs. 7,802 in expenditure. The increase of Rs. 7,802 is made up of Rs. 5,580 under "A. Conservancy and Works" and Rs. 2,222 under "B. Establishments," the former being due to felling operations having been undertaken on a larger scale in some divisions, and the latter generally to the increased rates of salaries drawn by Forest Officers under the reorganization scheme sanctioned by the Secretary of State for India, and given effect to from the opening of the year. As regards the increase of Rs. 33,805 in expenditure during the period of 3 months, *viz.* April, May and June 1893, over the revenue collected during the same period, it may be explained that very little revenue is received during these three months, but it commences to pour in later on; sales of timber do not take place till after the rains, grazing fees are paid when the grazing season opens, and revenue derived from fodder grass is generally paid into the treasuries in the autumn.

196. The following statement will show the distribution of receipts of the forest year among the several divisions of the Central Circle, and a comparison of them with the collections of the year preceding:—

No.	Division.	1891-92.	1892-93.	Increase.	Decrease.
		Rs.	Rs.	Rs.	Rs.
1	Direction	4	2	...	2
2	East Khándesh	1,50,811	1,67,237	16,426	...
3	West Khándesh	2,02,943	2,55,787	52,844	...
4	Násik	1,22,513	1,14,960	...	7,553
5	Ahmednagar...	57,411	61,256	3,845	...
6	Poona	95,189	96,613	1,424	...
7	Sátára	88,642	87,787	...	855
8	Sholápur	30,641	39,853	9,212	...
	Total ...	7,48,154	8,23,495	83,751	8,410

197. The increase of Rs. 16,426 in the East Khándesh Division is due to very extensive clearances of tree growth off the disforested lands at the foot of the Sátpudas in Chopda and Yával ranges, and to the collection of "duty on foreign timber" during the additional three months, when the import trade is very brisk. The increases from these two sources have more than counterbalanced the decreases under II. *d.* "Grazing" and V. *c.* Other sources," which are Rs. 9,900 and Rs. 3,010 respectively—the former being due to less demand for grass to be removed on permits by cultivators—owing to abundance of grass grown upon their own lands, while the latter is owing to a smaller amount having been realized in payment of sums of money by way of compensation for forest offences compounded under Section 67 of the Forest Act.

198. The quantity of timber and firewood exploited departmentally in the West Khándesh Division was greater than last year, and the prices realized were also very good. Nearly all the material was sold; a little remains on hand in the Akráni range. The revenue derived from duty on foreign timber also exhibits an increase of Rs 3,000, and these items account for the increase of Rs. 52,844 in the West Khándesh Division.

199. The decrease in the Násik Division of Rs. 7,553 is mostly due to a falling off in grazing receipts in Sinnar, Dindori, Chándor, Yeola, Nándgaon, Báglán and Kalvan ranges. Kurans also failed to fetch as much revenue as in the year before. Fee collections from sheep grazing likewise declined.

200. In the Ahmednagar Division the gross receipts were the highest on record since 1885-86, and even deducting the revenue realized during the three months of April, May and June 1893, excluding receipts from teak and hirda of the previous year, and which amounts to Rs. 1,192, the revenue is still higher by Rs. 2,653; and this increase is chiefly due to realizations from grass and grazing, consequent to better prices for grass, and to the permit system of grazing having been availed of to a greater extent than in the year preceding. The revenue would have been still higher had there not been a failure of hirda crop, which was even less than half the normal average.

201. The small increase of Rs. 1,424 in the Poona Division is apparently due to realizations during April, May and June 1893, amounting to Rs. 2,138, having been added to the receipts of the past twelve months. The revenue for the twelve months, if compared with that of the year before, shows a small decrease, and this is chiefly accounted for by falling off in the grazing fees, and to some grass and grazing sales having failed. The hirda crop was also short, and the free concession of karvi, shikakai and other minor produce helped to contribute to the decrease of revenue.

202. The revenue of the Sátára Division has almost approached the figure of the year preceding, showing but a slight decrease of Rs. 855, which calls for no remarks. The Sholápur Division, on the other hand, exhibits an increase of Rs. 9,212, and is mostly owing to better realizations under the heads I. (*b*) Firewood; II. (*a*) Timber and II. (*d*) Grazing and Fodder Grass.

203. The expenditure under "A. Conservancy and Works" distributed among the several forest divisions of the Central Circle, as compared with that of the preceding year, is as under:—

No.	Division.	1891-92.	1892-93.	In crease.	Decrease.
		Rs.	Rs.	Rs.	Rs.
1	Direction	567	3,338	2,771	...
2	East Khándesh	16,578	19,021	2,443,	...
3	West Khándesh	22,997	28,626	5,629	...
4	Násik	15,996	15,306	...	690
5	Ahmednagar	13,331	13,818	487	...
6	Poona	37,901	48,563	10,662	...
7	Sátára	18,276	22,920	4,644	...
8	Sholápur	6,807	9,033	2,226	...
	Total ...	1,32,453	1,60,625	28,862	690

204. The increase of Rs. 2,771 against "Direction" is due to the cost of maps supplied by the Superintendent, Photozinco Department, Poona, and to the cost of preparing and sending specimens of timber and forest products for the Chicago Exhibition, under orders contained in Government Resolution No. 7410, dated 19th September 1892, in the Revenue Department, having been adjusted in the accounts of the Conservator.

205. The East Khándesh Division exhibits an increase of Rs. 2,443 over the figures of past year, owing partly to the expenditure during the additional three months having been debited, and partly to the expenditure under A. I. *b*. Firewood.

206. The small increase of Rs. 2,443 against the West Khándesh Division is due to the departmental operations under timber and firewood having been undertaken on a larger scale. The expenditure during the additional three months is also, to some extent, the cause of the increase.

207. The small decrease, in Násik, of Rs. 690 is accounted for by less demarcation work, *i. e.*, of defining the boundaries of forest reservations upon the ground by the erection of special forest boundary marks in the ranges of Dindori, Peint, Yeola, Málegaon and Báglán.

208. There is a small increase of Rs. 487 against the Ahmednagar Division which is accounted for by the cost of barbed wire for fencing purposes.

209. The debit of a large sum of Rs. 28,929, on account of forest survey charges, in the accounts of the Poona Division has raised the expenditure in that

division, and hence the increase. In like manner a large portion of the increase of Rs. 2,226 in the expenditure of the Sholápur Division can be explained by the debit of Rs. 2,153 on account of forest survey charges, and the remaining small portion to the purchase of wire for fencing.

210. The increase of Rs. 4,644 in the Sátára Division is due partly to the increase in the establishment of the Forest Settlement Officer, and partly to the expenditure for three months having been added to that of the past twelve months.

211. The small increase of Rs. 2,222 under B. Establishments, when the results of 12 months are compared with those of the past year, and of Rs. 8[illegible],143 when the expenditure of 15 months is taken into account, calls for no remarks, as the increase is mostly due to the increased rates of salaries drawn by superior Forest Officers under the reorganization scheme which was given effect to from 1st April 1892, as stated in paragraph 195 above, and to the expenditure on account of salaries of officers, &c., for the additional three months.

CHAPTER V.

FOREST ADMINSTRATION.

212. The forest administration has, under Government Resolution No. 7107, dated 6th September 1892, in the Revenue Department, been subordinated to the Revenue Department, the Collector having been made the responsible officer in each district for the forest administration in his charge, and the Conservator having been placed more in the position of a consultative officer in technical matters.

Establishments and their recruitment.

213. The reorganization of the superior grades of the Forest Department into Imperial and Provincial Services was brought into operation from the 1st April 1892, under orders contained in Government Resolution No. 1860, dated 17th March 1892, in the Revenue Department.

214. The following is the distribution of appointments in the Central Circle at the close of the year :—

			Rs.
1	Conservator ...	1st grade, at	1,600
1	Deputy Conservator	1st do. at	900
4	Do.	3rd do. at	650
1	Do.	4th do. at	550
7	Total Imperial		

			Rs.
3	Extra Assistant Conservators	1st grade, at	350
2	Do.	3rd do. at	250
1	Do.	4th do. at	200
6	Total Provincial.		

215. The following statement shows the distribution and cost of the existing sanctioned staff of Rangers, Foresters and Forest guards in the divisions comprising the Central Circle :—

No.	Division.	Number of Ranges.	Range Forest Officers.							Forest Guards.						Total monthly cost.	Remarks.
			Rangers.				Foresters.										
			Rs. 100	Rs. 80	Rs. 60	Rs. 50	Rs. 40	Rs. 30	Rs. 20.	Rs. 15.	Rs. 12.	Rs. 10.	Rs. 9.	Rs. 8.	Rs. 7.		
1	East Khándesh...	13								8	16	20	20	40	75		The pay of Rangers and Foresters is personal, and they are liable to be transferred from one range to another as the exigencies of the service may require. Consequently the number of appointments in each grade is shown in lump for the whole Circle.
2	West Khándesh...	10								7	14	18	18	50	102		
3	Násik	14								10	20	25	26	50	158		
4	Ahmednagar ...	11	1	3	5	7	17	25	22	6	12	22	22	50	85	15,159	
5	Poona	11								9	17	26	25	60	120		
6	Sátára	14								9	18	24	22	57	102		
7	Sholapur	7								3	6	11	8	16	68		
	Total ...	80	1	3	5	7	17	25	22	52	103	146	141	323	710	15,159	

216. In addition to the above, the following temporary establishment was in entertainment throughout the year, in the divisions of Násik and Poona, at a total monthly cost of Rs. 375 :—

Násik—3 Forest Guards at Rs. 8 each...	Poona—15 Forest Guards at Rs. 8 each.
„ 3 do. at „ 7 „ ...	„ 30 do. at „ 7 „

217. The numerical strength and cost of the existing sanctioned office establishment of the Central Circle are exhibited in the statement given below :—

No.	Division.	Number and Gradation.											Total monthly cost.
		Clerks.								Peons.			
		Rs. 100.	Rs. 80.	Rs. 60.	Rs. 50.	Rs. 40.	Rs. 30.	Rs. 20.	Rs. 15.	Rs. 10.	Rs. 9.	Rs. 8.	
													Rs.
1	Direction	1	1	1	2	2	2	2	...	1	1	5	579
2	East Khándesh ...	...	...	...	1	...	1	2	2	...	1	3	183
3	West Khándesh ...	...	...	...	1	...	1	2	3	...	1	5	214
4	Násik	...	...	...	1	...	1	2	2	...	1	3	183
5	Ahmednagar ...	...	...	...	...	1	1	2	2	...	1	3	173
6	Poona	...	...	...	1	...	1	2	3	...	1	5	214
7	Sátára	...	...	...	1	...	1	2	3	...	1	5	214
8	Sholápur	...	...	...	...	1	1	2	1	...	1	3	158
	Total ...	1	1	1	7	4	9	16	16	1	8	32	1,918

218. Out of the total numerical strength shown against Direction, 3 clerks—one on Rs. 80, one on 40 and one on 30—and 2 peons at Rs. 8 each, have been attached to the office of the Deputy Conservator of Forests, Northern Circle, as a temporary measure.

219. In addition to the above permanent strength a temporary establishment, consisting of 1 clerk on Rs. 15 and 2 peons at Rs. 8 each, has been in entertainment in the Násik Division under the Sub-division Officer.

220. The supervision of the Divisional Forest Officers over the forest administration in their respective divisions was effective, and the general discipline was good.

In the East Khándesh Division 1 round guard and 7 beat guards and one depôt officer and one depôt peon were dismissed the service, for general misconduct and inattention to duty. One, Nathu Mairál, Depôt Officer at Dhánora, was prosecuted on a charge of criminal breach of trust, and was convicted and sentenced to 12 months' rigorous imprisonment and to pay a fine of Rs. 50.

In the West Khándesh Division one round guard was dismissed the service and one Range Forest Officer, Mirasgarali Rustumali, Forester Rs. 20 grade, of Navápur, was convicted under Section 384 of the Indian Penal Code and sentenced to six months'imprisonment.

In the Násik Division one round guard on Rs. 12, Mahádev Vishnu, is under prosecution for misappropriation of Government money ; and one Shankar Keshav Joshi on Rs. 10 has absconded, as there is a case of embezzlement against him ; 6 beat guards have resigned, and 15 have been dismissed for misconduct.

In the Ahmednagar Division, 5 beat guards were dismissed the service for allowing illicit cuttings in their beats and for neglect of duty.

In the Poona Division, 19 forest guards were dismissed the service, 15 were reduced for misconduct and irregularities. One round guard in the Mával Range, Shekh Mujáwar valad Shekh Yusaf, was prosecuted for absconding with Government money, and was sentenced to six months' rigorous imprisonment ; and one Balábhai Taskhan, forest guard, was also prosecuted for illegally levying fees for grass and grazing from villagers, and although the evidence was strong, the case fell through on technical grounds.

In the Sátára Division, 5 forest guards were dismissed the service and one resigned. One of the former, a round guard in the Mán Range, was convicted under Section 409 of the Indian Penal Code and sentenced to one year's rigorous imprisonment for criminal breach of trust.

In the Sholápur Division, 2 round guards and 12 beat guards were dismissed the service for neglect of duty.

221. The year under report was not as unhealthy as the preceding one. However, malarial fever was generally prevalent; and the following is a list of casualties in the different divisions of the Central Circle :—

No.	Division.	Deaths.
1	East Khándesh	3
2	Násik	2
3	Ahmednagar	1
4	Poona	4
5	Sátára	2
	Total ...	12

222. Mr. Madan, Extra Assistant Conservator of Forests, has held charge of the East Khándesh Division during the greater portion of the year; and the Collector has remarked, in his review of the divisional administration report: "The gross revenue is practically stationary: but the net revenue has again increased. Mr. Madan is, I think, to be congratulated on the results of the year's work; he takes an interest in his duties, and works harmoniously with other departments."

223. Mr. E. G. Oliver has been Divisional Forest Officer of West Khándesh Division throughout the year with the exception of one month, from 19th April 1893 to 19th May, while he was on privilege leave, and has administered his division in an able and efficient manner, and deserves much credit for his successful management of such a large, important and difficult charge. The Collector has recorded as follows :—

(*a*) That the forest settlement of the district is practically completed now, which, after all the uncertainty that has existed for so long, is a great relief. One cannot pass from the subject of forest settlement without mentioning the admirable way in which Mr. Dodgson has carried it out.

(*b*) That the system of tracing internal fire-paths has been a success. For, though there were more fires this year than last, the area burnt was not half so much: showing that the fires did not spread as they did last year: and it is the spreading of a fire that the paths are intended to prevent.

(*c*) That the number of cattle impounded fell off. And as Government attach a good deal of importance to this, it is satisfactory as showing that the people are beginning to understand the boundaries and to observe the rules. Rules will not be obeyed unless a penalty is attached and exacted when they are ignored. But the fact that the occasions for exacting penalties were less this year than last, is gratifying.

(*d*) That the Department seem able to meet the demand for timber and to make their handsome revenue without drawing upon the timber in Government forest at all. This is just as well, as it is not possible to bring timber down from the Akráni and other big forests at a profit. But probably when the Tápti Valley Railway is made, this will all be changed.

(*e*) That the financial results of the year have been excellent, and that this is not accidental and transient, but apparently part of a steady increase that has been going on for some years past.

224. Mr. Betham has performed his duties of Divisional Forest Office, Násik, in a very satisfactory manner as usual, and his Assistant, Mr. W. R. Gaunde, Extra Assistant Conservator, is reported to have worked well and to have given satisfaction.

225. Mr. Hornidge held charge of the Ahmednagar Division almost throughout the year, in addition to his own division of Sholápur. The Collector

of the latter district in forwarding the divisional report remarks that " Mr. Hornidge is a very industrious and conscientious officer ; " and the Conservator fully endorses this opinion.

226. The Poona Division was in charge of Mr. R. C. Wroughton from 1st April 1892 to 20th April 1892, when he was transferred to the Southern Circle as Conservator of Forests for that Circle, and was succeeded by Mr. Gleadow, who held charge up to 9th September 1892, when he was appointed a full-time Professor of Forestry at the College of Science, Poona. Mr. A. D. Wilkins then received charge of the division and held it up to the close of the year. All these officers have performed their duties satisfactorily with commendable zeal, energy and discretion, and it is also pleasing to note that Mr. J. H. Clabby, Sub-divisional Forest Officer, Poona, was of the greatest assistance to Mr. Wilkins.

227. Mr. R. S. F. Fagan was Divisional Forest Officer of Sátára throughout the year; and his Collector, Mr. Candy, in forwarding the report records that " Mr. Fagan has conducted the forest administration with singular ability and energy and rendered the Collector hearty co-operation when necessary."

Mr. Fagan reports that Mr. G. S. Hinge, who succeeded Mr. L. D. Joshi as Sub-divisional Forest Officer, Sátára, was of great assistance to him and deserves the highest commendation.

228. The subordinate officers generally both in the executive and office establishments have worked satisfactorily. A range forest officer's life is a very hard one with many and serious responsibilities, with constant calls upon his time and attention, and with little leisure to himself; and every reasonable consideration should be shown to these very useful officers, and their self-respect should be promoted by encouragement and praise when such has been fairly earned; and the Conservator has much pleasure in testifying to the good work done by, and in making special mention of, Messrs. Rámchandra Ráoji Bodvadkar and Aminuddin Alliuddin in East Khándesh, Abdul Rasul Khajbaksh in West Khándesh, Wáman Gopál Tumne and Kasamaga Mirzaaga in Násik, Dinkar Náráyan Dámle in Ahmednagar, Vishnu Mahádeo Tilak and Báláji Dhondeo Dhekne in Poona, Bálkrishna Balwant Parasnis and Keshav Pandurang Kavthekar in Sátára, in the executive branch; and of Messrs. Keshav Ganesh Vaidya, Madhavráo Náráyan Gokhale and Krishnáji Vyankatesh Lohokre, in the Conservator's Office, and Tukárám Vithoba Sonár, Dámodar Tukárám Salsingikar, Mádhavráo Dáji Joshi, Ganesh Náráyan Kavthekar, Trimbak Govind Mahájan, Gangádhar Chintáman Kále, and Vishnu Anant Bápat, in the Divisional Forest Offices, in the clerical branch.

Forest Instruction, &c.

229. As regards the working of the forest classes attached to the College of Science, Poona, the Principal of the College states that there are 25 candidates on the roll. The Conservator of Forests, Northern Circle (old), sent 4 candidates, the Conservator, Southern Circle, sent 4, and the Conservator, Sind Circle, sent 1 candidate only. At the final examination held in September 1892, 7 candidates appeared, of whom 6 passed the examination, Mr. F. Gleadow, Deputy Conservator of Forests, 3rd Grade, was appointed a full-time Professor of Forestry to the College from the 11th September 1892, and has been in charge of the classes ever since.

GENERAL REMARKS.

Imports and Exports of Forest Produce.

230. In the two forest divisions of Khándesh alone, in the Central Circle, is duty on foreign timber levied, while the exports of the Collectorate consist, for the main part, of Rosha oil (Andropogon schœnanthus) which goes to Bombay, and from there the best sort is exported to Europe. Teak (Tectona grandis) is also exported, to a small extent, from Khándesh down the Tápti river to the markets in the Baroda State.

231. The duty on foreign timber collected this year amounts to Rs. 36,910 against Rs. 23,587 in the year preceding, the reason of increase being that the year under report represents the results of 15 months, and consequently the receipts during the additional three months, during which brisk timber trade is generally carried on, have augmented the revenue.

232. On the 1st April 1892, *i.e.*, at the beginning of the year under report, the Conservator's camp was in the Thána districts, and after examining the forests and forest operations going on in the different ranges of that division up to 6th May, the Conservator moved camp into the Poona District and stationed at Khandálá up to the end of the month, when the rains set in, and he then came to Poona, the head-quarters station.

233. Before setting out into the districts the Conservator went to Sátára early in November, examined the office and records of the Divisional Forest Officer there, and then moved camp into the Poona districts. During the remaining period of November and in December the Conservator inspected the bábul forests and hill lands in the divisions of Poona and Sholápur. Mr. Wilkins, the Divisional Forest Officer, Poona, joined the Conservator in the Dhond Range on the 23rd November, and in company with him most of the bábul reserves in the Dhond and Indápur ranges were visited. After examining the office and records of the Divisional Forest Officer, Poona, the Conservator moved camp into the Sholápur Division, by the 15th of December, and up to the Christmas vacation inspected the riparian bábul reserves in the Karmála range.

234. After Christmas the office opened at Záre in the Karmála Range, where the Conservator was joined by Mr. Hornidge, the Divisional Forest Officer of Sholápur, and after examining the forests of that range in company with him, the Conservator encamped at Aljápur on the banks of the river Sina, which forms the borders of the Sholápur and Ahmednagar divisions, and examined both the Divisional Forest Offices of Sholápur and Ahmednagar, as Mr. Hornidge had the charge of the latter also in addition to his own. He then entered into the Jámkhed Táluka of the Ahmednagar Division, and passing through Shevgaon, Nevása, Ráhuri and Kapargaon ranges the Conservator moved into the Násik Division, and encamped at Bokta in the Yeola Range on the 11th February 1893.

235. Passing through the Yeola and Nándgoan ranges of the Násik Division the Conservator pitched camp at Nándgaon, and from there he proceeded to Poona by order of Government, in order to accompany the Inspector-General of Forests, through some portion of the forests in the eastern tálukas of the Poona District, and was with him up to the end of February, when the Inspector-General of Forests went into the Madras Presidency, and the Conservator then returned back to his office camp at Chálisgaon in the East Khándesh Division.

236. The Conservator then marched through the Chálisgaon and Jalgaon ranges into the Erandol Range, where he was met by Mr. Madan, the Divisional Forest Officer of that division. The office and records of that officer were examined, and the Conservator then marched through the Amalner Range to Dhulia, where he was met by Mr. Oliver, the Divisional Forest Officer of West Khándesh. The office and records of this division were examined, and the Conservator then passed through the Dhulia Range into the Málegaon Range of the Násik Division and encamped at Manmád on the 25th March. From Manmád the Conservator went to Násik, examined the office and records of the Divisional Forest Officer there and closed office for the Easter vacation on the 29th of that month.

237. During the vacation the office camp moved from Manmád to Igatpuri, and the office opened there on the 5th April 1893. Mr. W. G. Betham, Divisional Forest Officer, Násik, joined the Conservator at this camp, and the forests of that range were inspected. The Conservator then moved camp into the Akola Táluka of the Ahmednagar Division, and parting from his office camp at Waki with instructions to proceed by cart-road into the Junnar Táluka of the Poona division *viâ* Rájur, Kotul and Bráhmanváda, the Conservator walked over the hilly country of the Akola ghâts bodering the Syhádris inspecting the forests and hirda depôts, and he joined the office camp at Náráyangaon in the Junnar Range; from thence he marched to Ghoda in the A'mbegaon Range, and once more

leaving the office camp there with instructions to go to Khed along cart-roads, he proceeded to Bhimáshankar through the evergreen forests to visit the scene of an extensive destruction of reserved forests which was made for the purpose of dalhi cultivation in the villages of Nigdale, Kondval and Terungaon in the Ámbegaon Range during the months of April and May 1892.

238. The Conservator then directed the office camp to be moved from Khed to Poona, while he marched along the ghâts to Kárkála, and then took rail to Poona, and went from thence to Mahábaleshvar in May, and encamped there up to the 10th of June: and then returned to Poona for the rainy season; and at the end of the forest year, *i.e.* on the 30th June 1893, the Conservator was in Poona.

239. The Conservator has finally much pleasure in acknowledging the cordial support and assistance which he received from Mr. J. F. Fleet, I.C.S., Commissioner, C.D., under whose orders he has served, and from all the Collectors of the several forest divisions comprising the Central Circle; there has been perfect harmony and good-will, and forest interests have prospered generally.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

Camp Ahmednagar,
8th January 1894.

B 827—13 cq

FORM No. 46.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Area of Reserved Forests, 1892-93.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st April 1892.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1893.		Number and date of Notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
				Sq.m. a.				Sq.m. a.		
East Khándesh	Khándesh ...		506,375	791 135	(*a*) 4,188	(*b*) 968	509,595	796 155	(*a*) Nos. 841 31-1-93, 4219A 16-5-92, 5871 19-7-92. (*b*) No. 8015 10-10-92.	
West Khándesh....			705,775	1,102 495	(*c*) 2,195	(*d*) 2,236	705,734	1,102 454	(*c*) Nos. 4219A 16-5-92, 7672 27-9-92. (*d*) Nos. 8756 7-11-92, 522 19-1-93, 82 5-1-93.	
Násik	Násik		818,499	1,278 579	(*e*) 194	(*f*) 4	818,689	1,279 129	(*e*) Nos. 3081 29-3-92, 5927 20-8-92, 2904 24-4-93. (*f*) Nos. 6608 17-8-92, 8544 31-10-92, 4235 13-6-93.	
Ahmednagar ...	Ahmednagar ...		533,666	833 546	(*g*) 521	(*h*) 116	534,071	834 311	(*g*) No. 3820 2-5-92. (*h*) Nos. 1857 & 1867 & 68 13-3-93, 9509 5-12-92. 3159 2-5-93, 6779 23-8-92.	
Poona	Poona		475,742	743 222	...	(*i*) 1,274	474,468	741 228	(*i*) Nos. 6610 17-8-92, 6902 30-8-92, 8068 1-10-92.	
Sátára	Sátára		437,965	684 205	(*j*) 6,014	(*k*) 1,253	442,726	691 486	(*j*) Nos. 200 6-1-93, 4086 5-6-93, 5882 21-7-92. 2897 24-4-93, 3977 25-5-93, 6329 5-8-92. (*k*) Nos. 8757 & 58 7-11-92, 6254 3-8-92, 3160 4-5-93, 3773 23-5-93, 1768 8-3-93, 2263 28-3-93, 4260 15-6-93, 7283 14-9-92, 8014 30-10-92, 4021 9-5-92, 842 31-1-93, 4028 9-5-92, 6329 5-8-92, 8069 11-10-92, 7695 28-9-92.	
Sholápur	Sholápur ...		177,623	277 343	(*l*) 272	(*m*) 2	177,893	277 613	(*l*) Nos. 1952 16-3-92, 3286 6-5-93, 3387 13-4-92. (*m*) Nos. 2927 25-4-93, 4012 2-6-93.	
			3,655,645	5,711 605	13,384	5,853	3,663,176	5,723 456		

Poona, 1st November 1893.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

FORM No. 46 A.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Area of Protected Forests, 1892-93.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st April 1892.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1893.		Number and date of Notification of addition or transfer.	REMARKS.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
				Sq.m. a.				Sq.m. a.		
East Khándesh ...	Khándesh ...		...	...	...	...	...	...		
West Khándesh ...			113,715	177 435	...	...	113,715	177 435		
Násik	Násik		...	...	...	...	...	...		
Ahmednagar ...	Ahmednagar ...		7,337	11 297	...	173	7,164	11 124	No. 2398 / 10-1-93.	
Poona	Poona		...	...	...	...	...	...		
Sátára	Sátára		648	1 8	...	4	644	1 4	No. 3601 / 23-4-92.	
Sholápur	Sholápur ...		...	...	...	...	...	...		
		Total ...	121,700	190 100	...	177	121,523	189 563		

Poona, 1st November 1893.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

FORM No. 47.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Statement showing the Progress made in, and the Expenditure incurred on, Forest Settlements during 1892-93.

Name of Forest Division.	Name of Civil District or Territory.	Area already settled at commencement of the year.	Areas finally settled during the year.					Areas undergoing settlement.						Remarks.
			Number and date of Government order according final sanction to the settlement.	Name of Forest settled.	Area, in square miles.	Expenditure incurred during the year on areas finally settled.		Entire cost per square mile of areas finally settled during the year.	At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing Settlement.	
						In Forest accounts.	In other accounts.		Name of tract.	Area in square miles.	Name of tract.	Area in square miles.	In Forest accounts.	In other accounts.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		Sq. Ms.				Rs.	Rs.	Rs.					Rs.	Rs.	
Reserved.															
East Khándesh ..	Khándesh ...	791	4219A 16-5-92. 5871 19-7-92. 841 of 31-1-93.	...	7	...	...	...	...	7	...	11	7,092	9,246	Expenditure incurred on areas finally settled and undergoing settlement cannot be shown separately and has therefore been entered in lump in columns 14 and 15 for reserved and protected forests.
West Khándesh ...		1,103	4219A 16-6-92. 7672 27-9-92.	...	3	...	...	...	...	160	...	32			
Násik	Násik	1,279	3081 29-3-92 5927 20-8-92. 2904 24-4-93.	...	97/320	...	...	...	...	...	...	99/320	...	...	
Ahmednagar ...	Ahmednagar ...	834	3820 2-5-92.	...	521/640	...	...	...	...	1	...	15/32	855	...	
Poona	Poona	743	.....	...	...	...	...	...	...	3	...	2	2,485	...	
Sátára	Sátára	684	200 of 6-1-93. 2397 of 24-4-93. 4036 of 5-6-93. 3977 of 25-5-93 5882 of 21-7-92. 6329 5-8-92.	...	9	..	...	...	...	9	...	2	1,641	4,895	
Sholápur	Sholápur ...	278	1952 16-3-92. 3256 6-5-93. 3387 13-4-92.	...	272/640	...	...	...	...	93/640	...	71/320	...	...	
		5,712	... ..	...	21	...	...	...	...	180	...	48	12,073	14,141	
Protected.															
West Khándesh ...		178	.....	...	...	...	...	...	...	261	...	219	...	...	
Ahmednagar ...		11	.....	...	...	...	...	...	...	...	...	...	...	...	
Sátára		1	.. ...	...	...	...	...	...	...	...	...	...	...	...	
		190	.....	...	...	...	...	...	...	261	...	219	...	...	

A. T. SHUTTLEWORTH,
Conservator of Forests, Northern Circle.

Poona, 1st November 1893.

B 827—14 CC

FORM No. 48.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Record of Demarcation and Maintenance of Boundaries, 1892-93.

Division.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries not demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on Demarcation during the year.		Remarks.
								On new work.	On repairs.	
1	2	3	4	5	6	7	8	9	10	11
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs.	Rs.	
East Khándesh	4	439	...	443	...	...	443	4	54	
West Khándesh	451	522	1,091	2,064	...	26	2,090	1,978	...	
Násik	319	378	1,521	2,218	...	318	2,536	2,776	1,153	
Ahmednagar	117	600	...	717	...	...	717	1,171	...	
Poona	178	...	1,646	1,824	...	...	1,824	1,846	...	
Sátára	528	71	305	904	...	200	1,104	1,583	...	
Sholápur	133	45	642	820	...	...	820	517	...	
Total ...	1,730	2,055	5,205	8,990	...	544	9,534	9,875	1,207	

N.B.—Boundaries include, beside the outer perimeter, the limits of enclosures of private or other lands within the forests, but not the limits of sub-divisions, such as blocks, compartments, coupes.

Poona, 1st November 1893.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

FORM No. 49.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Statement of Forest Areas surveyed and under Survey during the year 1892-93.

Division.	Areas surveyed and under survey during the year.																						Areas remaining to be taken under Survey.	Total Forest area at end of tht year, as per Form No. 46.	COST.			Remarks.
	Special surveys—Maps on 4" scale or over, by Survey of India Department or Forest Survey Branch.								*Ordinary, included in District Surveys.*								*Chain and compass or other surveys by local officers.*											
	WITH INTERIOR DETAILS.					BOUNDARY SURVEYS.			WITH INTERIOR DETAILS.					BOUNDARY SURVEYS.			WITH INTERIOR DETAILS.					BOUNDARY SURVEYS.								
	WITH DETAILS OF GROWING STOCK.		WITHOUT DETAILS OF GROWING STOCK.		Total Cost.	Previous.	Of the year.	Total Cost.	WITH DETAILS OF GROWING STOCK.		WITHOUT DETAILS OF GROWING STOCK.		Total Cost.	Previous.	Of the year.	Total Cost.	4-INCH OR OVER.		UNDER 4-INCH.		Total Cost.	Previous.	Of the year.	Total Cost.						
	Previous.	Of the year.	Previous.	Of the year.					Previous.	Of the year.	Previous.	Of the year.					Previous.	Of the year.	Previous.	Of the year.										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Reserved.			Sq. m.	Sq. m.	Rs.																				Sq. m.	Sq. m.	Rs.	Rs.	Rs.	
East Khándesh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	796	796	...	...	...	
West Do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,103	1,103	...	...	...	
Násik	...	...	234	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,045	1,279	11,714	...	11,714	
Ahmednagar	...	..	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	820	835	2,884	...	2,884	
Poona	...	...	426	124	22,555	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	291	741	31,135	22,555	53,690	
Sátára	...	...	76	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	616	692	5,504	...	5,504	
Sholápur	...	...	24	6*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	248	278	4,578	...	4,578	* Cost included in Poona.
Total ...	...	...	775	130	22,555	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4,819	5,724	55,815	22,555	78,370	
Protected.																														
West Khándesh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	178	178	...	...	...	
Ahmednagar	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	11	...	...	...	
Sátára	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	
Total ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	190	190	...	...	...	

Poona, 1st November 1893.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

FORM No. 50.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Progress made in Working-Plans, 1892-93.

Division.	Areas for which Working-Plans have been completed.		Areas for which Working-Plans are being compiled.		Areas for which Working-Plans have still to be taken in hand.	Total Forest area, as in Form No. 46.	Entire cost per square mile of Working-Plans completed.	Remarks.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.				
1	2	3	4	5	6	7	8	9
Reserved Forests.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	
East Khándesh	.....	.....	.....	.....	796	796	.....	
West Khándesh	.....	.....	.....	.....	1,103	1,103	.....	
Násik	118	49	.....	327	785	1,279	.....	
Ahmednagar	.....	.....	.....	.....	835	835	.....	
Poona	14	.....	.....	148	579	741	.....	
Sátára...	.....	.....	.....	.....	692	692	.....	
Sholápur	132	66	80	.....	.....	278	.....	
Total ...	264	115	80	475	4,790	5,724	.....	
Protected Forests.								
West Khándesh	.....	.....	.....	.....	178	178	.....	
Ahmednagar	.....	.....	.....	.....	11	11	.....	
Sátára	.....	.....	.....	.....	1	1	.....	
Total ...	.....	.....	.....	.....	190	190	.....	

Poona, 1st November 1893.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

FORM No. 51.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Communications and Buildings during 1892-93.

Division.	NEW WORK UNDERTAKEN DURING THE YEAR.						REPAIRS EXECUTED DURING THE YEAR.						REMARKS.
	Buildings.		Roads and Paths.			Total Expenditure on new Work.	Buildings.		Roads and Paths.			Total Expenditure on Repairs.	
	Description of Building.	Expenditure incurred.	Road or Path and object of the same.	Length of Road or Path.	Expenditure incurred.		Nature of Repairs.	Expenditure incurred.	Nature of Repairs.	Length repaired.	Expenditure incurred.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Rs.		Miles.	Rs.	Rs.		Rs.		Miles.	Rs.	Rs.	
East Khándesh	31 huts	345	.....	...	...	345	Tile turning, mud plastering to walls and replacing rotten posts and rafters, &c., of 3 huts and 3 depôt houses.	28	.....	...	...	28	
	1 depôt house ...	20	.....	...	...	20							
	Total ...	365	.....	...	...	365	.....	28	.....	...	...	28	
West Khándesh	9 huts in the Division and 1 rest-house at Laling in Dhulia Range (partly constructed).	996	.....	...	...	996	Repairing walls, making compounds and roofing 87 huts and 7 depôts in the Division.	564	Repairing Kalumbari road (20 feet wide) so as to allow the dealers to remove produce of felling at Ubhand.	1	7	571	
	Total ...	996	.....	...	...	996	.....	564	.....	1	7	571	
Násik	3 huts of Forest guards.	15	.....	...	...	15	Repairing 94 huts of Forest guards.	110	.....	...	...	110	
	Total ...	15	.....	...	...	15	.....	110	.....	...	...	11	
Ahmednagar ...	...	...	.....	...	...	...	.....	...	.....	...	...	...	
Poona	4 Forest guards' huts, &c., (partly constructed).	28	.....	...	...	28	.....	...	.....	...	...	...	
	Total ...	28	.....	...	...	28	.....	...	.....	...	...	...	
Sátára	...	...	.....	...	...	...	Repairing huts of Forest guards, &c.	98	.....	...	...	98	
	Total ...	...	.....	...	...	...	.....	98	.....	...	...	98	
Sholápur ...	.....	...	.....	...	...	...	Petty repairs, &c.	2	.....	...	...	2	
	Total ...	...	.....	...	...	...	.....	2	.....	...	...	2	
	Grand Total ...	1,404	.....	...	...	1,404	.....	802	.....	1	7	809	

Poona, 1st November 1893.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

B 827—15 cc

FORM No. 52.

Forest Department, Bombay, Central Circle.

Register of Breaches of Forest Rules during 1892-93.

Forest Division.		Cases pending from 1891-92.	New Cases of the Year.					Total Cases.	Disposed of during the Year.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15
East Khándesh	A	9	14	17	18	20	69	78	56	101	15	39	71	140	7
	B	...	3	219	322	163	707	707	666	1,168	...	...	666	1,168	...
	C	...	19	9	...	1	29	...	...	...	...	...	...	...	...
	Total	9	36	245	340	184	805	785	722	1,269	15	39	737	1,308	7
West Khándesh	A	5	31	37	1	14	83	88	67	140	13	29	80	169	8
	B	...	1	196	361	17	575	575	575	1,713	...	...	575	1,713	...
	C	...	133	55	21	...	209	...	...	...	...	...	...	...	...
	Total	5	165	288	383	31	867	663	642	1,853	13	29	655	1,882	8
Násik ...	A	18	3	48	47	37	135	153	94	246	42	119	136	365	17
	B	165	52	505	955	74	1,586	1,751	1,063	4,349	...	...	1,063	4,349	159
	C	...	127	67	25	6	225	...	...	...	...	...	...	...	...
	Total	183	182	620	1,027	117	1,946	1,904	1,157	4,595	42	119	1,199	4,714	176
Ahmednagar	A	14	...	38	116	29	183	197	151	346	37	64	188	410	9
	B	569	...	144	2,273	8	2,425	2,994	2,760	6,767	...	...	2,760	6,767	234
	C	...	...	79	354	14	447	...	...	...	...	...	...	...	...
	Total	583	...	251	2,743	51	3,055	3,191	2,911	7,113	37	64	2,948	7,177	243

FORM No. 52—*continued.*

Forest Division.		Cases pending from 1891-92.	New Cases of the Year.					Total cases.	Disposed of during the Year.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
1		2	3	4	5	6	7	8	9	10	11	12	13	14	15
Poona	A ...	9	7	171	321	145	644	653	417	1,135	201	735	618	1,870	35
	B ...	...	24	655	2,372	73	3,124	3,124	2,277	5,853	...	...	2,277	5,853	...
	C ...	...	109	139	48	...	296	...	...	...	...	...	...	...	...
	Total ...	9	140	965	2,741	218	4,064	3,777	2,694	6,988	201	735	2,895	7,723	35
Sátára	A ...	17	15	72	64	77	228	245	146	307	60	195	206	502	39
	B ...	264	26	262	251	57	596	860	741	1,977	...	...	741	1,977	119
	C ...	...	48	127	284	13	472	...	...	...	...	...	...	...	...
	Total ...	281	89	461	599	147	1,296	1,105	887	2,284	60	195	947	2,479	158
Sholápur	A ...	13	...	5	73	19	97	110	78	161	25	86	103	247	7
	B ...	428	...	...	1,137	...	1,137	1,565	1,565	3,727	...	...	1,565	3,727	...
	C ...	...	15	...	...	...	15	...	...	...	...	...	...	...	...
	Total ...	441	15	5	1,210	19	1,249	1,675	1,643	3,888	25	86	1,668	3,974	7
Grand Total ...	A ...	85	70	388	640	341	1,439	1,524	1,009	2,436	393	1,267	1,402	3,703	122
	B ...	1,426	106	1,981	7,671	392	10,150	11,576	9,647	25,554	...	...	9,647	25,554	512
	C ...	...	451	476	732	34	1,693	...	...	...	...	...	...	...	...

N.B.—A means cases taken into Court.
B means cases disposed of under Section 67 of Indian Forest Act, 1878.
C means undetected cases.

Poona, 1st November 1893.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

FORM No. 53.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Area of Forest Tracts Protected from Fire during 1892-93.

Division.	Forest Tracts.	Year in which protection commenced.	Area protected during 1891-92.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	REMARKS.
1	2	3	4	5	6	7	8	9
			Acres.	Acres.	Acres.	Acres.	Rs.	
East Khándesh ...	Amalner	1878-79 ...	19,260	19,950	325	19,625	..	
	Páchora... ...	,, ...	29,433	28,465	2	28,463	10	
	Bhadgaon							
	Bhusával	,, ...	64,065	65,942	3,657	62,285	...	
	Edlábád							
	Chalisgaon	,, ...	59,418	60,319	451	59,868	51	
	Chopda	,, ..	105,836	107,668	9,059	98,609	81	
	Erandol	,, ...	16,410	16,675	...	16,675	...	
	Jalgaon	,, ...	19,750	21,440	184	21,256	4	
	Jámner	,, ...	40,717	41,592	395	41,197	25	
	Ráver	,, ...	122,141	154,264	34,715	119,549	110	
	Sávda							
	Yával							
	Total ...	...	477,030	516,315	48,788	467.527	281	
W[illegible]hándesh ...	Dhulia	1878-79 ...	130,184	131,192	9,000	122,192	38	
	Nandurbár	,, ...	31,035	131,242	65,000	66,242	153	
	Navápur							
	Pimpalner	,, ...	165,363	212,298	55,000	157,298	255	
	Nizámpur							
	Sháháda	,, ...	5,676	85,680	28,000	57,680	47	
	Shirpur...	,, ...	27,159	206,148	70,000	136,148	202	
	Sindkhed	,, ...	24,912	24,916	1,000	23,916	45	
	Taloda	,, ...	64,984	284,660	60,000	224,660	164	
	Akráni							
	Total ...	...	449,313	1,076,136	288,000	788,136	904	
Násik	Násik	1878-79 ...	42,062	43,970	343	43,627	20	
	Igatpuri	,, ...	53,282	53,976	153	53,823	15	
	Sinnar	,, ...	35,330	35,370	392	34,978	...	
	Dindori...	,, ...	53,896	55,575	1,431	54,144	11	
	Niphád	,, ...	3,445	3,446	52	3,394	...	
	Chándor	,, ...	24,866	24,898	242	24,656	...	
	Yeola	,, ...	31,494	31,541	219	31,322	15	
	Báglán	,, ...	119,671	1,24,167	2,772	121,395	4	
	Kalvan	,, ...	107,185	1,09,361	726	108,635	50	
	Peint	,, ...	107,111	1,07,218	116	107,102	1	
	Málegaon	,, ..	121,689	1,22,054	542	121,512	1	
	Nándgaon	,, ...	107,147	1,07,311	882	106,429	49	
	Total ...	...	807,178	818,887	7,870	811,017	166	
Ahmednagar ...	Nagar	1878-79 ...	40,463	40,493	1,159	39,334	...	
	Parner	,, ...	63,992	64,122	229	63,893	...	
	Shrigonda	,, ...	44,557	44,550	16	44,534	...	
	Karjat	,, ...	50,152	50,149	450	49,699	...	
	Jamkhed	,, ...	40,046	39,961	160	39,801	...	
	Shevgaon	,, ...	26,597	26,655	161	26,494	...	
	Nevása	,, ...	19,719	19,765	70	19,695	...	
	Ráhuri	,, ...	48,888	48,920	105	48,815	...	
	Kopargaon	,, ...	9,084	9,109	..	9,109	...	
	Sangamner	,, ...	86,665	86,732	22	86,710	...	
	Akola	,, ...	110,987	111,358	526	110,832	...	
	Total ...	...	541,150	541,814	2,898	538,916	...	
Poona	Junnar	1878-79 ...	60,613	61,946	1,415	60,531	4	
	Indápur...	,, ...	62,745	61,494	14	61,480	...	
	Khed	,, ...	55,709	56,753	1,602	55,151	4	
	Ambegaon	,, ...	44,128	44,171	307	43,864	...	
	Sirúr	,, ...	20,753	20,795	104	20,691	...	
	Purandhar	,, ...	25,699	25,827	282	25,545	...	
	Bhimthadi	,, ...	19,379	19,379	9	19,370	...	
	Dhond	,, ...	52,258	52,413	17	52,396	...	
	Haveli	,, ...	49,865	50,434	519	49,915	...	
	Mulshi	,, ...	27,970	28,361	883	27,478	...	
	Maval	,, ...	53,721	54,596	1,148	53,448	...	
	Total ...	.....	472,840	476,169	6,300	469,869	8	

FORM No. 53—*continued.*

Division.	Forest Tracts.	Year in which protection commenced.	Area protected during 1891-92.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	Remarks.
1	2	3	4	5	6	7	8	9
			Acres.	Acres.	Acres.	Acres.	Rs.	
Sátára	Mahábaleshvar... ...	1878-79 ...	41,370	41,389	729	40,660	6	
	Mán	,, ...	56,270	56,105	48	56,057	...	
	Khatáv	,, ...	20,176	20,887	2	20,885	...	
	Karád	,, ...	35,971	35,973	9	35,964	...	
	Wái	,, ...	24,892	24,843	16	24,827	...	
	Koregnon	,, ...	28,772	28,138	3	28,135	...	
	Sátára	,, ...	22,128	22,314	194	22,120	...	
	Tásgaon...	,, ...	20,005	20,101	...	20,101	...	
	Khandála	,, ...	14,189	14,189	60	14,129	...	
	Jávli	,, ...	50,717	51,112	170	50,942	...	
	Khánápur	,, ...	32,083	36,850	9	36,841	...	
	Válva	,, ...	28,186	28,932	293	28,639	...	
	Shirála							
	Pátan	,, ...	62,932	64,011	524	63,487	...	
	Total ...	...	437,691	444,844	2,057	442,787	6	
Sholápur... ...	Sholápur	1878-79 ...	38,542	38,554	67	38,487	...	
	Bársi	,, ...	8,403	8,536	2	8,534	...	
	Mádhe	,, ...	31,417	31,477	332	31,145	...	
	Karmála	,, ...	51,050	51,242	457	50,785	...	
	Pandharpur	,, ...	6,109	6,192	...	6,192	...	
	Sángola...	,, ...	20,528	20,589	...	20,589	...	
	Málsiras...	,, ...	21,445	21,445	2	21,443	...	
	Total ...	...	177,494	178,035	860	177,175	...	
	Grand Total ...	...	3,362,696	4,052,200	356,773	3,695,427	1,365	

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

Poona, 1st November 1893.

B 827—16:cc

FORM No. 54.

Forest Department, Bombay, Central Circle.

Area closed and open to Grazing during 1892-93.

Division.	Area in Square Miles.						Remarks.
	Closed to all animals.		Closed to browsers (camels, goats or sheep).		Open to all animals.	Total area.	
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.		
1	2	3	4	5	6	7	8
Reserved Forests.							
East Khándesh	60	...	736	...	...	796	Areas entered in column 4 are open to cattle of the bovine species during a portion of the year,—that is, during the grazing season.
West „	365	...	738	...	...	1,103	
Násik	468	...	811	...	...	1,279	
Ahmednagar	369	124	342	...	...	835	
Poona	397	316	28	...	...	741	
Sátára	181	...	511	...	...	692	
Sholápur	182	...	96	...	...	278	
Total ...	2,022	440	3,262	...	...	5,724	
Protected Forests.							
West Khándesh	...	...	178	...	...	178	
Ahmednagar	...	11	... 1	...	...	11	
Sátára	...	...		...	...	1	
Total ...	...	11	179	...	...	190	

Poona, 1st November 1893.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

FORM No. 55.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Return of Grazing in the State Forests during 1892-93.

Division.	GRAZING ON PAYMENT—NUMBER OF ANIMALS.													GRAZING FREE—NUMBER OF ANIMALS.												Grand total of value at full rates.
	AT FULL RATES.						AT PRIVILEGED RATES.							BY RIGHT UNDER SETTLEMENT.						DURING PLEASURE OF GOVERNMENT, OR OTHERWISE THAN UNDER SETTLEMENT.								
	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals	Fees received.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Fees received. Actual.	Fees received. Value at full rates.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Value of Fees at full rates.	Buffaloes.	Cows. and Bullocks.	Goats and Sheep.	Camels.	Other animals	Value of Fees at full rates.	Total value of Fees at full rates.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
						Rs.						Rs.	Rs.						Rs.						Rs.	Rs.	Rs.
East Khandesh	3,422	17,571	34,951	...	595	17,806	19,413	114,701	1,104	...	14	33,452	76,905	1,452	7,339	...	...	107	5,175	...	...	...	...	...	...	5,175	99,886
West Khándesh	11,193	33,029	237,257	...	308	28,549	5,891	92,182	1,240	...	5,465	...	55,382	2,513	21,895	118	...	336	5,574	...	...	...	...	...	...	5,574	89,505
Násik	4,058	112,629	55,370	...	539	43,109	32	220	...	...	...	30	71	...	...	...	...	...	...	5,663	37,324	4,592	...	1,973	13,286	13,286	56,466
Ahmednagar ...	987	3,833	3,885	...	48	3,419	4,272	99,389	50,776	...	280	30,231	60,462	...	...	...	...	...	...	1,050	8,043	...	...	...	3,265	3,265	67,146
Poona	394	2,149	12,299	...	12	3,031	1,487	15,814	58,337	...	138	8,519	17,038	...	...	...	...	...	...	13,473	91,712	...	...	3	60,548	60,548	80,617
Sátára	851	1,288	3,743	...	917	2,074	840	6,376	56,330	...	6,413	6,637	13,273	...	...	...	...	...	...	...	290,419	...	...	...	1,50,046	1,50,046	1,65,393
Sholápur ...	130	322	...	...	...	291	1,833	24,262	...	...	33	6,990	13,980	...	...	...	...	...	...	...	...	...	...	11,383	2,416	2,416	16,687
Total ...	21,035	171,721	347,505	...	2,419	98,279	33,768	352,944	167,787	...	12,343	90,859	2,37,111	3,965	29,234	118	...	443	10,749	20,186	427,498	4,592	...	13,359	2,29,561	2,40,310	5,75,700

Poona, 1st November 1893.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

FORM No. 56.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Area of Plantations, 1892-93.

Division.	Name of Plantation	Area in Acres. On 1st April 1892.	Added during the year.	Excluded during the year.	Area on 30th June 1893.	Receipts. Of the year.	Charges. Of the year.	Remarks.
1	2	3	4	5	6	7	8	9
	Regular Plantations.	Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	
East Khándesh ...	*Nil*	...	...	...	...	...	...	
West Khándesh ...	Dhulia	15	11	...	26	...	209	
	Pimpalner	2	...	...	2	...	45	
	Total ...	17	11	...	28	...	254	
Násik	Sátpur	...	31	...	31	...	87	
	Páthardi	...	17	...	17	...	106	
	Násik Gangákáth	...	12	...	12	...	95	
	Sawandgaon...	...	70	...	70	...	5	
	Total ...	...	130	...	130	...	293	
Ahmednagar ...	Dongargan	142	...	...	142	...	...	
Poona	Junnar	66	248	...	314	...	199	
	Khed...	2	...	...	2	...	...	
	Haveli	22	202	...	224	...	506	
	Bhimthadi	26	152	...	178	...	215	
	Dhond	74	224	...	298	...	567	
	Indápur	179	428	...	607	...	789	
	Sirúr	39	183	...	222	...	264	
	Mával	...	15	...	15	...	7	
	A'mbegaon	...	380	...	380	...	55	
	Total ...	408	1,832	...	2,240	...	2,602	
Sátára	Khatáv	287	25	...	312	...	145	
	Koregaon	248	6	...	254	...	172	
	Karad	282	25	...	307	...	195	
	Khandala	103	19	...	122	...	65	
	Válva...	80	22	...	102	...	14	
	Sátára	75	33	...	108	...	174	
	Wái	245	19	...	264	...	150	
	Mán	160	5	...	165	...	100	
	Jávli	42	...	...	42	...	...	
	Mahábaleshvar	1,124	4	...	1,128	...	90	
	Tasgaon	302	2	...	304	...	22	
	Pátan	168	7	...	175	...	96	
	Khánápur	69	4	...	73	...	11	
	Shirála	26	...	...	26	...	...	
	Total ...	3,271	171	...	3,382	...	1,234	
Sholápur	*Nil*	...	...	...	...	...	...	
	Total, Regular Plantations.	3,778	2,144	...	5,922	...	4,383	
	Cultural Operations.							
East Khándesh...	Amalner	2,457	34	...	2,491	...	20	
	Bhadgaon	336	225	...	561	...	20	
	Bhusaval	2,899	427	...	3,326	...	80	
	Chálisgaon	851	173	...	1,024	...	61	
	Chopda	889	459	...	1,348	...	35	
	Edalabad	1,451	1,518	...	2,969	...	56	
	Erandol	5,281	550	...	5,831	...	19	
	Jalgaon	979	166	...	1,145	...	21	
	Jamner	1,259	455	...	1,714	...	15	
	Pachora	95	111	...	206	...	70	
	Ráver	597	221	...	818	...	26	
	Savda	1,024	200	...	1,224	...	10	
	Yával	751	11	...	762	...	14	
	Total ...	18,869	4,550	...	23,419	...	447	
West Khándesh ...	Akráni	239		...	250	...		
	Dhulia	4,274	...	...	4,274	...		
	Nandurbár	789	25	...	814	...		
	Navápur	1,410	10	...	1,420	...		
	Nizámpur	505	50	...	555	...	155	
	Pimpalner	1,463	100	...	1,563	...		
	Shahada	3,477	50	...	3,527	...		
	Shirpur	1,771	20	...	1,791	...		
	Sindkhed	6,177	5	...	6,182	...		
	Taloda	1,090	20	...	1,110	...		
	Total ...	21,195	291	...	21,486	...	155	

FORM No. 56—*continued.*

Division.	Name of Plantation.	Area in Acres. On 1st April 1892.	Area in Acres. Added during the year.	Area in Acres. Excluded during the year.	Area in Acres. Area on 30th June 1893.	Receipts. Of the year.	Charges. Of the year.	Remarks.
1	2	3	4	5	6	7	8	9
	Cultural Operations—contd.	Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	
Násik	Násik	483	286	379	390	....	709	
	Igatpuri	416	118	70	464	...	382	
	Sinnar	495	146	201	440	...	27	
	Dindori	239	...	164	75	..	...	
	Niphád	444	204	439	209	...	667	
	Chándor	746	194	...	940	...	707	
	Peint	120	...	60	60	...	...	
	Yeola	2,286	...	109	2,177	...	613	
	Nándgaon	601	342	359	584	...	404	
	Málegaon	1,969	...	70	1,899	...	2	
	Báglán	632	70	429	273	...	21	
	Kalvan	228	...	...	228	...	15	
	Total ...	8,659	1,360	2,280	7,739	...	3,547	
Ahmednagar ...	Nagar	2,121	2,182	...	4,303	...	563	
	Párner	1,022	736	...	1,758	...	168	
	Shrigonda	2,364	2,147	...	4,511	...	429	
	Karjat	1,412	1,736	...	3,148	...	284	
	Jámkhed	2,448	900	...	3,348	...	66	
	Shevgaon	1,276	1,483	...	3,359	...	248	
	Nevása	833	960	...	1,793	...	168	
	Ráhuri	1,632	664	...	1,996	...	283	
	Kopargaon	1,216	1,103	...	2,319	...	514	
	Sangamner	4,636	3,287	...	7,923	...	215	
	Akola	1,494	1,621	...	3,115	...	193	
	Total ...	19,854	16,819	...	36,673	...	3,131	
Poona	Junnar	1,012	146	...	1,158	...	108	
	Indápur	3,645	328	...	3,973	...	292	
	Khed	6,188	1,250	...	7,438	...	48	
	Ambegaon	2,299	22	...	2,321	...	41	
	Sirúr	5,883	1,195	...	7,078	...	59	
	Purandhar	5,973	111	...	6,084	...	30	
	Bhimthadi	2,114	94	...	2,208	...	176	
	Dhond	3,773	...	...	3,773	...	109	
	Haveli	1,485	681	...	2,166	...	168	
	Mulshi	849	17	...	866	...	3	
	Mával	1,119	29	...	1,148	...	...	
	Plantation by guards ...	6,784	...	...	6,784	...	..	
	Total ...	41,124	3,873	...	44,997	...	1,034	
Sátára	Jávli	10,398	5,219	...	15,617	...	109	
	Karád	21,700	5,696	...	27,396	...	9	
	Khánápur	5,761	4,468	...	10,429	...	48	
	Khandala	4,363	13	...	4,376	...	9	
	Khatáv	1,349	45	...	1,394	...	5	
	Koregaon	19,103	4,273	...	23,376	...	215	
	Mahábaleshvar	6,470	268	...	6,738	...	166	
	Mán	12,854	1,235	...	14,089	...	37	
	Pátan	6,197	442	...	6,639	...	...	
	Sátára	3,212	286	...	3,498	...	4	
	Shirála	741	3	...	744	...	17	
	Tásgaon	1,374	...	...	1,374	...	...	
	Wái	18,137	398	...	18,535	...	16	
	Válva	4,491	967	...	5,458	...	73	
	Total ...	116,150	23,513	...	139,663	...	708	
Sholápur	Sholápur	4,887	1,006	...	5,893	...		
	Bársi	2,866	1,260	...	4,126	...		
	Mádha	9,958	706	...	10,664	...		
	Karmála	9,586	38,679	...	48,265	...	805	
	Pandharpur	4,628	1,268	...	5,896	..		
	Sángola	7,996	66	...	8,062	...		
	Málsiras	23,298	2,036	...	25,334	...		
	Total ...	63,219	45,021	...	108,240	...	805	
	Total, Cultural Operations .	289,070	95,427	2,280	382,217	...	9,827	
	Add—Total Regular Plantations	3,778	2,144	...	5,922	...	4,383	
	Grand Total ...	292,848	97,571	2,280	388,139	...	14,210	

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

Poona, 1st November 1893.

B 827—17 cc

FORM No. 57.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Outturn (in cubic feet, solid) of Timber and Fuel during the year 1892-93, and Agency of Exploitation.

Division.	Timber in the rough; Logs.					Timber in the rough; Poles.					Sawn or Squared Timber.					Miscellaneous.					Fuel.					Total.
	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free-grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Government.	Purchasers.	Free grantees.	Right-holders.	Total.	Outturn.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	C. ft.	C. ft.			C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.						C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
East Khándesh ...	...	255,105	...	...	255,105	18,740	...	...	...	18,740	...	...	...	..	...	...	Bamboos No. 1,131,212	.....	...	Bamboos No. 1,131,212	1,022,985	1,299,200	...	...	2,322,185	2,596,030 Bamboos No. 1,131,212
West Khándesh ...	36,891	51,030	...	...	87,921	88,281	101,135	...	...	189,416	...	...	...	...	...	15,853	6,024 Bamboos No. 131,253	900	50,000	72,777 Bamboos No. 131,253	431,766	167,900	...	2,500,000	3,099,666	3,449,780 Bamboos No. 131,253
Násik	....	..	...	...	...	15,894	567,469	19,988	...	603,351	...	...	...	...	...	...	72 Bamboos No. 266,637 Cart loads 585	Bamboos 75	...	72 Bamboos No. 266,712 Cart loads 585	129,463	331,701	225	...	461,392	1,064,815 Bamboos No. 266,712 Bamboo cart-loads 585
Ahmednagar ...	...	...	...	...	...	64,514	...	...	...	64,514	...	...	...	...	...	...	Bamboos 46,578	.....	..	Bamboos No. 46,578	111,614	81,843	...	...	193,457	257,971 Bamboos No. 46,578
Poona	...	...	...	...	...	61,638	1,413	1,662	...	64,713	...	...	...	...	...	...	Bamboos 142,151	.....	...	Bamboos No. 142,151	45,365	184,543	...	...	229,908	294,621 Bamboos No. 142,151
Sátára	...	...	...	...	...	13,545	25,023	544	...	39,112	...	...	...	...	...	...	Bamboos 53,416 Head loads 9	.....	...	Bamboos No. 53,416 Head loads 9	376,341	20,596	...	...	396,937	436,049 Bamboos No. 53,416 9 head loads
Sholápur	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	302	.....	...	302	18,735	1,585	...	...	20,320	20,622
Total ...	36,891	306,135	...	...	343,026	262,612	695,040	22,194	...	979,846	...	...	...	...	...	15,853	6,398 Bamboos No. 1,771,247 585 cart-loads 9 head loads	900 Bamboos No. 75	50,000	73,151 Bamboos No. 1,771,322 585 cart-loads 9 head loads.	2,136,269	2,087,371	225	2,500,000	6,723,865	8,119,888 Bamboos No. 1,771,322 Bamboo cart-loads 585 Bamboo head-loads 9.

Charcoal should be shown by its equivalent in fuel, the quantity of wood consumed in producing it being entered in cubic feet, solid.

Poona, 1st November 1893.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

FORM No. 58.

Forest Department, Bombay, Central Circle.

Outturn of Minor Forest Produce.

Division.	Description of Produce.	Produce removed or utilized.									
		By Government Agency.		By Purchasers.		By Free Grantees.		By Right Holders.		Total.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9	10	11	12
			Rs.		Rs.		Rs.		Rs.		Rs.
East Khándesh.	Stone ... ... Cart-loads.	.....	...	4,346	635	...	...	...	...	4,346	635
	Do. ... ... Cubic feet.	.....	...	219,216	549	...	...	...	...	219,216	549
	Thorns ... ... Cart-loads.	.....	...	3,486	222	...	...	...	...	3,486	222
	Manure ... ... Do.	.....	...	147	142	...	...	...	...	147	142
	Anjan leaves ... Do.	.....	...	10	3	...	...	...	...	10	3
	Do. ... Head-loads.	.....	...	124	8	...	...	...	...	124	8
	Rosha oil stills ... No.	.....	...	6	100	...	...	...	...	6	100
	Mango fruits	.....	...	.....	6	...	...	...	...	.....	6
	Grass and grazing	.....	...	.....	75,173	...	...	...	...	.....	75,173
	Total ...	.....	...	.....	76,838	...	...	...	...	.....	76,838
West Khándesh.	Earth ... ... Cart-loads.	.....	...	1,400	172	...	...	...	...	1,400	172
	Stone ... ... Do.	.....	...	1,917	215	...	...	...	...	1,917	215
	Muram ... ... Do.	.....	...	17	2	...	...	...	...	17	2
	Kárvi ... ... Do.	.....	...	478	60	...	...	...	...	478	60
	Reed... ... ... Do.	.....	...	865	124	...	...	...	...	865	124
	Manure ... ... Do.	.....	...	2,416	760	...	...	...	...	2,416	760
	Limestone ... ... Do.	.....	...	325	40	...	...	...	...	325	40
	Thorns ... ... Do.	.....	...	825	60	...	...	...	...	825	60
	Mango fruits	.....	...	.....	693	...	...	...	...	.....	693
	Anjan and tarwad leaves ... ... Head-loads.	.....	...	469	15	...	...	...	...	469	15
	Rosha oil stills	.....	...	179	13,644	...	...	...	...	179	13,644
	Grass and grazing	.....	...	.....	1,10,306	...	...	...	...	.....	1,10,306
	Total ...	.....	...	.....	1,26,091	...	...	...	...	.....	1,26,091
Násik.	Grass ... ... Bundles.	.....	...	86,875	87	...	...	...	...	86,875	87
	Do. ... ... Cart-loads.	.....	...	227	106	...	...	...	...	227	106
	Grazing fee	.....	...	.....	43,251	...	...	...	...	.....	43,251
	Do. by auction	.....	...	.....	15,933	...	...	...	...	.....	15,933
	Mango fruits	.....	...	.....	5	...	...	...	...	.....	5
	Manure ... ... Cart-loads.	.....	...	8	1	...	...	...	...	8	1
	Kárvi ... ... Cubic feet.	.....	...	110,411	512	...	...	...	...	110,411	512
	Rán ... ... Do.	.....	...	14,403	160	...	...	...	...	14,403	160
	Thorns ... ... Do.	.....	...	5,040	50	...	...	...	...	5,040	50
	Stone ... ... Do.	.....	...	24,710	122	3,870	1	...	...	28,580	123
	Rosha oil	.....	...	.....	924	...	...	...	...	.....	924
	Earth ... ... Cart-loads.	.....	...	.....	...	100	6	...	...	100	6
	Hirda nuts	K. m. lbs. 39 4 8	774	.....	...	...	...	...	...	K. m. lbs. 39 4 8	774
	Total ...	.....	774	.....	61,151	...	7	...	...	.....	61,932
Ahmednagar.	Hirda nuts. Bombay Khandy ...	K. m. p. 54 8 16	784	.....	...	...	...	...	...	K. m. p. 54 8 16	784
	Stone... ... ... Cart-loads.	.....	...	6,404	554	...	...	...	...	6,404	554
	Kárvi... ... ... Head-loads.	.....	...	2,789	88	...	...	...	...	2,789	88
	Wild fruits...	.....	...	.....	135	...	...	...	...	.....	135
	Tarwad	.....	...	.....	155	...	...	...	...	.....	155
	Babul pods...	.....	...	.....	414	...	...	...	...	.....	414
	Miscellaneous	.....	...	.....	128	...	...	...	...	.....	128
	Earth ... ... Cart-loads.	.....	...	.....	5	...	...	...	...	.....	5
	Grass and grazing	.....	...	.....	43,372	...	...	...	...	.....	43,372
	Total ...	.....	784	.....	44,851	...	...	...	...	.....	45,635
Poona.	Grass and grazing	.....	...	.....	43,062	...	...	...	...	.....	43,062
	Hirda nuts	K. m. lbs. 3 3 16	73	K. m. lbs. 65 19 7	3,679	...	...	...	...	K. m. lbs. 68 22 23	3,752
	Tarwad	.....	...	.....	389	...	...	...	...	.....	389
	Roofing materials	.....	...	2 Cart loads. 858 Head-loads	76	...	...	...	...	2 Cart-loads. 858 Head-loads	76
	Minerals	.....	...	1,480 Cart-loads.	395	...	...	...	...	1,480 Cart-loads.	395
	Toddy fee	.....	...	.....	32	...	...	...	...	.....	32
	Miscellaneous	.....	...	.....	63	...	...	...	...	.....	63
	Rán	.....	...	.....	...	...	200	...	...	.....	200
	Total ...	.....	73	.....	47,696	...	200	...	...	.....	47,969
Sátára.	Hirda nuts	K. m. lbs. 824 16 16	16,945	.....	...	...	...	...	...	K. m. lbs. 824 16 16	16,945
	Shikakai ... ... Contract.	.....	...	.....	725	...	...	...	...	.....	725
	Brushwood... ... Cart-loads.	.....	...	448	50	...	...	...	...	448	50
	Stone ... ... Do.	.....	...	16,450	1,006	...	...	...	...	16,450	1,006
	Earth ... ... Do.	.....	...	5	1	...	...	...	...	5	1
	Fruits	.....	...	.....	17	...	...	...	...	.....	17
	Tarwad bark ... Contract.	.....	...	.....	564	...	...	...	...	.....	564
	Aloe... ... ... Head-loads	.....	...	43	4	...	...	...	...	43	4
	Thorns ... ... Do.	.....	...	9,329	603	...	...	...	...	9,329	603
	Kárvi ... ... Do.	.....	...	28	1	...	...	...	...	28	1
	Shewri	.....	...	.....	64	...	...	...	...	.....	64
	Canes ... ... Head-loads.	.....	...	400	3	...	...	...	...	400	3
	Manure	.....	...	.....	7	...	...	...	...	.....	7
	Grass and grazing	.....	...	.....	36,761	...	...	...	...	.....	36,761
	Total ...	.....	16,945	.....	39,806	...	...	...	...	.....	56,751
Sholápur.	Mango fruits	.....	...	.....	25	...	...	...	...	.....	25
	Tamarind fruits	.....	...	.....	1	...	...	...	...	.....	1
	Tádi juice	.....	...	.....	1	...	...	...	...	.....	1
	Sand... ... ... Cart-loads	.....	...	230	39	...	...	...	...	230	39
	Earth ... ... Do.	.....	...	5	1	...	...	...	...	5	1
	Grass and grazing	.....	...	.....	24,088	...	...	...	...	.....	24,088
	Total ...	.....	...	.....	24,155	...	...	...	...	.....	24,155

Poona, 1st November 1893.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

FORM No. 59.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1892-93.

Particulars.	Number or Quantity.	Cubic feet.	Total of each head. Number or Quantity.	Total of each head. Cubic feet.	Particulars.	Number or Quantity.	Cubic feet.	Total of each head. Number or Quantity.	Total of each head. Cubic feet.
TIMBER.									
Balance at the commencement of the year.					*Sold locally.*				
West Khándesh., Teak pieces ...	8,184	4,092	8,184	4,092	Teak logs and rafters	311,094	271,670		
Násik ... ... { Do. logs and rafters	20	120	20	120	Do. pieces	90,572	27,134		
Ahmednagar ... Do. do. ...	8	12	8	12	Junglewood pieces	2,073	1,316	4,03,739	3,00,120
Sátára ... ... { Do. do. ...	967	249	.....	.....	*Used by the Department.*				
Jungle wood pieces.	2,023	1,016	2,990	1,265	Teak pieces	30	11	30	11
Received from the Forests in Depôts.			11,202	5,489	*Free Grants.*				
					Teak logs and rafters	34	13	34	13
Teak logs and rafters	324,340	285,638			*Lost and written off.*				
Do. pieces	93,594	29,398			Teak logs and rafters	1	6		
Junglewood rafters	50	300			Do. pieces	272	308	273	314
			4,17,984	3,15,336				404,076	300,458
					Balance at the close of the year.				
					West Khándesh... { Teak logs and rafters.	14,164	14,164		
					Do. pieces.	8,309	4,132	22,473	18,296
					Násik ... ... { Teak logs and rafters.	21	126	21	126
					Ahmednagar ... Do. do. ...	21	40	21	40
					Sátára ... ... Teak pieces...	2,595	1,905	2,595	1,905
					Total, Balance ...	...	.....	25,110	20,367
Total ...	...	.....	429,186	320,825	Total ...	...	.....	429,186	320,825
FIREWOOD.									
Balance at the commencement of the year.					*Sold locally.*				
					Firewood... ... Khandies ...	17,565	1,879,759		
West Khándesh. Firewood ...	...	20,226	.....	20,226	Teak loppings ... Stacks... ...	36,651	.....	54,218	1,879,759
Sátára ... ... Do. ...	...	44,775	.....	44,775	Firewood	...	1,200	.....	1,200
Sholápur ... Do. ...	...	366	.....	366	*Free Grants.*				
Received from the Forests in Depôts.				65,367	Firewood	...	225		
					Teak loppings ... Stacks ...	8,714	.....	8,714	225
Firewood ... Khandies ...	20,837	2,005,584			*Lost or written off.*				
Teak loppings... Stacks ...	45,365	.....	66,202	2,005,584	Firewood	...	4,525	.....	4,525
								62,930	1,885,709
					Balance at the close of the year.				
					East Khándesh ... Firewood ...	3,272	147,240	3,272	147,240
					West Khándesh... do. ...	...	19,768	.....	19,768
					Násik ... ... do. ...	...	673	.....	673
					Ahmednagar ... do. ...	...	74	.....	74
					Sátára ... ... do. ...	...	17,470	.....	17,470
					Sholápur ... ... do. ...	...	17	.....	17
					Total, Balance ...	...	.....	3,272	185,242
Total ...	...	.....	66,202	2,070,951	Total ...	...	.....	66,202	2,070,951
BAMBOOS.									
Balance at the commencement of the year.					*Sold locally.*				
					Bamboos	500	.....	500	.....
Received from the Forests in Depôts.								500	.....
Bamboos	500	.....	500	.....	*Balance at the close of the year.*				
Total ...	...	.....	500	.....	Total ...	...	.....	500	.....

FORM No. 59—*continued.*

Particulars.	Number or Quantity.	Cubic feet.	Total of each head. Number or Quantity.	Total of each head. Cubic feet.	Particulars.	Number or Quantity.	Cubic feet.	Total of each head. Number or Quantity.	Total of each head. Cubic feet.
				OTHER MINOR PRODUCE.					
Balance at the commencement of the year.		K. m. lbs.		K. m. lbs.	*Sold locally.*		K. m. lbs.		K. m. lbs.
Násik ... ... Seed	...	1 2 12	.....	1 2 12	Hirda	...	713 27 3	.....	713 27 3
Ahmednagar ... Hirda... ...	...	44 1 20	.....		*Used by the Department.*				
Seed	...	32 22 20	.....	76 24 12	Hirda	...	1 2 20	.....	
Sátára ... ... Hirda... ...	...	124 27 15	.....		Seed	...	312 18 18	.....	313 21 10
Seed	...	40 2 8	.....	165 1 23	*Lost or written off.*				
				K. m. lbs. 243 0 19	Hirda	...	166 23 6	.....	166 23 6
									1,194 15 19
Received from the Forests in Depôts.	Bags.	K. m. lbs.			*Balance at the close of the year.*	Bags.			
Hirda	...	939 25 13	.....	.....	East Khándesh ... Seed	120	.....	120	.....
Seed	120	452 0 20	120	1,391 26 5			K. m. lbs.		K. m. lbs.
					Násik ... ... Do.	...	1 19 4	.....	1 19 4
					Ahmednagar ... Seed	...	148 3 7	.....	
					Hirda... ...	...	18 20 13	.....	166 23 20
					Sátára ... ... Hirda... ...	...	208 9 6	.....	
					Seed	...	55 17 19	.....	263 26 25
					Sholápur ... ... Seed	...	7 25 12	.....	7 25 12
								Bags.	
					Total, Balance ...	...	.....	120	440 11 5
Total ...	...	.....	Bags. 120	K. m. lbs. 1,634 26 24	Total ...	...	.....	Bags. 120	K. m. lbs. 1,634 26 24

Poona, 1st November 1893.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

FORM No. 60.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Abstract showing the value of Timber and other Produce at Sale Depôts for the year 1892-93.

Description of Timber and other Produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in Value.		Remarks.
	No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favour of the year.	Against the year.	
			Rs.			Rs.	Rs.	Rs.	
East Khándesh Division.									
Firewood	.....	...	...	Khandis. 3,272	147,240	1,639	...	...	
Seed	Kh. m. lb. 35 14 16	...	...	Bags. 120	...	...	...	...	
Total ...	.....	...	...	.....	...	1,639	1,639	...	
West Khándesh Division.									
Teak pieces	8,184	4,050	800	8,309	4,132	8,000	...	...	
Do. rafters	.....	...	...	14,164	14,164				
Firewood	.....	20,226	350	.....	19,768	349	...	...	
Total ...	.....	...	1,150	.....	...	8,349	7,199	...	
Násik Division.									
Teak rafters	.....	120	80	21	126	21	...	...	
Seed	.....	K. m. lb. 1 2 12	22	.....	K. m. lb. 1 19 4	25	...	...	
Total ...	.....	...	102	.....	...	46	...	56	
Ahmednagar Division.									
Teak rafters	8	12	3	21	40	10	...	...	
Firewood	.....	...	...	.....	74	8	...	...	
Hirda	.....	K. m. lb. 44 1 20	...	... ..	*K. m. lb. 18 20 13	3	...	...	* Out of this 18-16-8 are on account of dryage.
Seed	.....	K. m. lb. 32 22 20	...	.....	K. m. lb. 148 3 7	...	...	...	
Total ...	.....	...	3	.....	...	21	18	...	
Sátára Division.									
Teak pieces	967	249	186	2,595	1,905	303	...	...	
Junglewood pieces	2,023	1,016	290	.....	...	...	...	...	
Firewood	.....	44,775	999	.....	17,470	392	...	...	
Hirda	.....	K. m. lb. 124 27 15	32	.....	†K. m. lb. 208 9 6	22	...	...	† With the exception of 133 pállies or K. 1 m. 19 lb. 0 the whole quantity is to be written off.
Seed	.....	K. m. lb. 40 2 8	...	.....	K. m. lb. 55 17 19	...	...	...	
Total ...	.....	...	1,507	.....	...	717	...	790	
Sholápur Division.									
Firewood	.....	366	27	.....	17	1	...	...	
Seed	.....	...	...	.....	K. m. lb. 7 25 12	...	...	...	
Total ...	.....	...	27	.....	...	1	...	26	
Grand Total ...	.....	...	2,789	.....	...	10,773	8,856	872	

Net difference in favour of the year, Rs. 7,984.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

Poona, 1st November 1893.

B 827—18 cc

FORM No. 60 A.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Abstract showing the Value of Live and Dead Stock for the year 1892-93.

Description of Live and Dead Stock	On hand at commencement of the year.		On hand at close of the year.		Difference in Value.		Remarks.
	No.	Value.	No.	Value.	In favour of the year. No.	Against the year. Value.	
Direction Division.		Rs.		Rs.		Rs.	
Office tents	*2	973	1	541	...	...	*The old office tent has been sent to the Deputy Conservator of Forests, N. C.
Rahuti	1	95	1	95	...	...	
Tools, plant and office furniture ...	.....	1,070	.....	1,120	...	...	
Total ...	.....	2,138	.....	1,756	...	382	
East Khándesh Division.							
Office tent	1	248	1	248	...	...	
Great coats	192	1,254	192	1,254	...	...	
Tools, plant and office furniture ...	.....	805	.....	1,007	...	..	
Total ...	.....	2,307	.....	2,509	202	...	
West Khándesh Division.							
Office tent	1	387	1	387	...	...	
Cabul pal	1	126	1	126	...	...	
Great coats	219	1,428	219	1,428	...	...	
Tools, plant and office furniture ...	.....	5,931	.....	6,040	...	...	
Total ...	.....	7,872	.....	7,981	109	...	
Násik Division.							
Office tents	2	544	2	544	...	...	
Great coats	303	1,976	303	1,976	...	...	
Tools, plant and office furniture ...	.....	258	.....	258	...	...	
Total ...	.....	2,778	.....	2,778	...	...	
Ahmednagar Division.							
Office tent	1	387	1	387	...	...	
Office room, Range Forest Officer, Karjat	1	214	1	214	...	...	
Hirda depôt at Shinganwadi	1	25	1	25	...	...	
Forest rest-houses	3	90	3	90	...	...	
Great coats	208	1,357	208	1,357	..	...	
Tools, plant and office furniture ..	.....	1,115	.....	1,133	...	...	
Total ...	.....	3,188	.....	3,206	18	...	
Poona Division.							
Office tent	1	433	1	433	...	...	
Rahuti	.....	...	1	80	...	...	
Range Forest Officer's offices	5	7,752	9	14,134	...	...	
Great coats	315	2,054	315	2,054	...	...	
Tools, plant and office furniture ...	.....	922	.....	1,131	...	...	
Total ...	.....	11,161	.....	17,832	6,671	...	
Sátára Division.							
Bungalow at Malcolmpeth	1	700	1	700	...	...	
Office tent	1	433	1	433	...	...	
Cabul pal	1	111	1	111	...	...	
Great coats	246	1,606	246	1,606	...	...	
Tools, plant and office furniture ...	.....	921	.....	1,078	...	...	
Total ...	.....	3,771	.....	3,928	157	...	
Sholápur Division.							
Office tent	1	387	1	387	...	...	
Great coats	119	777	119	777	...	...	
Tools, plant and office furniture ..	.....	231	.....	6,085	...	...	
Total ...	.....	1,395	.....	7,249	5,854	...	
Grand Total ...	.....	34,610	.....	47,239	13,011	382	

Net difference in favour of the year Rs. 12,629.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

Poona, 1st November 1893.

FORM No. 61.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Summary of Revenue and Expenditure of the different Divisions during the Forest year 1892-93 (from April 1892 to end of June 1893).

Budget Heads.	Direction.	East Khándesh Division.	West Khándesh Division.	Násik Division.	Ahmednagar Division.	Poona Division.	Sátára Division.	Sholápur Division.	Total for the Forest year 1892-93.
REVENUE.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—Timber and other Produce removed from the Forests by Government Agency—									
a. Timber	.....	10,152 2 3	63,192 4 2	1,124 8 0	7,872 14 3	26,543 9 0	9,058 6 2	.....	1,17,943 11 10
b. Firewood and charcoal	.....	29,778 3 0	12,432 12 0	3,321 8 0	635 2 6	835 13 11	4,910 0 9	2,103 5 0	54,016 13 2
c. Bamboos	.....	.....	.....	.....	.....	.....	.....	.....	.....
d. Sandalwood	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	.....	.....	.....	773 8 9	783 12 0	72 12 8	16,945 1 0	.....	18,575 2 5
Total I.	.....	39,930 5 3	75,625 0 2	5,219 8 9	9,291 12 9	27,452 3 7	30,913 7 11	2,103 5 0	1,90,535 11 5
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—									
a. Timber	.....	6,023 8	8 0	30,545 12 2	266 12 11	1,394 13 3	12,340 13 3	11,154 8 6	78,826 12 1
b. Firewood and charcoal	.....	10,710 10 6	8,542 1 6	3,868 13 3	3,846 3 4	8,002 1 9	325 5 6	491 6 1	35,786 9 11
c. Bamboos	.....	10,122 5 11	4,731 5 0	6,188 11 10	772 10 9	1,476 10 3	1,109 12 7	0 8 0	24,402 0 4
d. Grazing and fodder grass	.....	75,173 5 11	1,10,306 6 6	59,377 3 3	43,372 6 6	43,061 13 6	36,760 10 0	24,088 4 8	3,92,140 2 4
e. Other minor produce	.....	1,665 1 0	15,784 15 6	1,774 2 4	1,479 2 0	4,633 9 4	3,045 4 9	66 11 4	28,448 14 3
Total II.	.....	1,03,694 15 4	1,56,665 4 6	1,01,554 10 10	49,737 3 6	58,569 0 1	53,581 14 1	35,801 6 7	5,59,604 6 11
III.—Drift and Waif Wood and confiscated Forest Produce	.....	528 11 8	701 7 9	206 14 3	145 8 11	710 2 1	98 9 11	26 6 6	2,417 12 4
Total III.	.....	528 11 8	701 7 9	206 14 3	145 8 11	710 2 1	98 9 11	26 6 6	2,417 12 4
IV.—Revenue from Forests not managed by Government—									
a. Duty on foreign timber and other forest produce	.....	19,013 6 3	17,698 8 6	.....	.....	.....	.....	.....	36,909 14 9
b. Revenue from shared and private forests	.....	.....	.....	.....	.....	513 3 7	.....	.....	513 3 7
Total IV.	.....	19,013 6 3	17,896 8 6	.....	.....	513 3 7	.....	.....	37,423 2 4
V.—Miscellaneous—									
a. Fines and forfeitures	.....	75 0 0	100 0 0	1,174 13 1	24 6 0	714 2 0	187 13 0	7 0 0	2,283 2 1
b. Refunds	0 8 0	31 11 10	18 2 1	19 11 5	9 13 4	546 5 5	20 13 4	26 5 5	673 6 10
c. Other sources	1 4 0	3,962 12 8	4,781 0 0	6,784 3 2	2,047 3 3	8,107 15 4	2,984 3 3	1,888 14 4	30,557 8 0
Total V.	1 12 0	4,069 8 6	4,899 2 1	7,978 11 8	2,081 6 7	9,368 6 9	3,192 13 7	1,922 3 9	33,514 0 11
Grand Total Revenue	1 12 0	1,67,236 15 0	2,55,787 6 3	1,14,959 13 6	61,255 15 9	96,613 0 1	87,786 13 6	39,853 5 10	8,23,495 1 11

FORM No. 61—*continued.*

Budget Heads.	Direction.	East Khándesh Division.	West Khándesh Division.	Násik Division.	Ahmednagar Division.	Poona Division.	Sátára Division.	Sholápur Division.	Total for the Forest year 1892-93.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
EXPENDITURE.									
A.—Conservancy and Works.									
I.—Timber and other Produce removed from the Forests by Government Agency—									
a. Timber	.....	1,272 8 0	4,044 2 1	71 15 0	1,215 2 5	2,877 4 6	1,154 2 0	.....	10,635 2 0
b. Firewood and charcoal	.....	6,480 0 0	2,407 2 9	676 15 0	18 9 0	183 9 0	2,206 13 0	109 1 6	12,082 2 3
c. Bamboos	.....	.....	5 0 0	.....	.....	.....	... ..	.....	5 0 0
d. Sandalwood	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Grass and other minor produce	... ..	.....	.....	20 15 6	582 11 3	30 5 0	6,268 3 4	.....	6,902 3 1
Total A, I. ...	.....	7,752 8 0	6,456 4 10	769 13 6	1,816 6 8	3,091 2 6	9,629 2 4	109 1 6	29,624 7 4
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers ...	.....	6,882 0	[illegible] 1	3,273 9 1	2,771 7 1	779 8 2	561 7 6	580 8 5	21,650 6 11
Total A, II. ...	... ..	6,8[illegible]	[illegible] 1	3,273 9 1	2,771 7 1	779 8 2	561 7 6	580 8 5	21,650 6 11
III.—Drift and Waif Wood and confiscated Forest Produce	.....	34 0 3	.....	11 1 6	20 4 0	18 8 6	3 12 10	.....	87 11 1
Total A, III. ...	.....	34 0 3	.....	11 1 6	20 4 0	18 8 6	3 12 10	.....	87 11 1
IV.—Revenue from Forests not managed by Government—									
a. Duty on foreign timber and other forest produce	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Revenue from shared and private forests...	.....	0 2 0	.....	.....	.....	.....	.....	.....	0 2 0
Total A, IV. ...	.....	0 2 0	.....	.....	.....	.....	.....	.....	0 2 0
V.—Rent of leased Forests and payments to shareholders in Forests managed by Government ...	.....	.....	.....	18 11 4	118 10 9	2,033 13 9	3,184 15 2	.....	5,356 3 0
Total A, V. ...	.....	.....	.....	18 11 4	118 10 9	2,033 13 9	3,184 15 2	.....	5,356 3 0

VI.—Live Stock, Stores, Tools and Plant—									
a. Purchase of cattle	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Feed and keep of cattle	.....	.....	.....	.....	.....	.....	.....	.....	.....
c. Purchase of stores, tools and plant ...	50 0 0	204 15 11	144 14 10	95 4 0	138 7 9	306 14 0	410 5 0	42 0 9	1,392 14 3
Total A, VI. ...	50 0 0	204 15 11	144 14 10	95 4 0	138 7 9	306 14 0	410 5 0	42 0 9	1,392 14 3
VII.—Communications and Buildings—									
a. Roads and bridges	.....	.....	6 12 0	.....	.....	.....	.....	.....	6 12 0
b. Buildings	.....	392 8 0	1,559 14 5	125 8 0	.....	20 0 0	98 0 3	2 8 0	2,198 6 8
c. Other works	.....	.....	.....	.....	.....	8 1 6	.....	.....	8 1 6
Total A, VII ...	.....	392 8 0	1,566 [illegible] 5	125 8 0	.....	28 1 6	98 0 3	2 8 0	2,213 4 2
VIII.—Demarcation, Improvement, and Extension of Forests—									
a. Demarcation	.....	58 10 9	9,775 11 5	4,104 8 6	2,509 14 3	4,330 2 11	3,148 3 7	516 11 4	24,443 14 9
b. Compensation for land and rights ...	.....	1,712 9 6	.....	.....	676 14 8	173 7 0	135 0 0	.....	2,697 15 2
c. Surveys	.....	.....	.....	.....	.....	28,928 13 11	.....	2,152 11 7	31,081 9 6
d. Working-plans	2,550 0 0	710 4 7	476 12 0	556 14 9	501 15 0	877 12 3	522 8 3	502 8 0	6,699 4 10
e. Sowing and planting	4 1 6	446 8 8	405 6 0	3,640 0 11	3,131 2 10	3,635 8 9	1,941 10 8	805 1 9	14,209 9 1
f. Protection from fire	.....	280 8 0	904 6 0	146 2 6	.....	8 5 0	5 14 0	.....	1,365 3 6
g. Other works	.....	.....	1,757 5 9	874 10 0	2,269 6 3	2,791 10 3	474 6 9	3,941 13 0	12,109 4 0
Total A, VIII ...	2,554 11 6	3,208 9 6	13,319 9 2	9,542 4 8	9,089 5 0	40,745 12 1	6,227 11 3	7,918 13 8	92,606 12 10
IX.—Miscellaneous—									
a. Refunds	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Law charges	.....	89 10 0	.....	0 12 9	.....	0 15 0	20 0 0	.....	111 5 9
c. Other charges	733 9 5	456 10 10	336 4 3	1,468 15 10	—136 13 7	1,558 13 11	2,784 11 11	379 14 10	7,582 3 5
Total A, IX ...	733 9 5	546 4 10	336 4 3	1,469 12 7	—136 13 7	1,559 12 11	2,804 11 11	9 14 10	7,693 9 2
Total A, Conservancy and Works ...	3,338 4 11	19,021 1 1	28,625 9 7	15,306 0 8	13,817 11 8	48,563 9 5	22,920 2 3	9,032 15 2	1,60,625 6 9
B.—Establishments.									
I.—Salaries—									
a. Conservators	23,900 0 0	.....	.....	.....	.....	.....	.....	.....	23,900 0 0
b. Superior Officers	1,050 0 0	10,046 7 7	11,908 6 1	17,835 0 0	1,960 5 6	21,525 0 0	15,510 7 4	9,650 0 0	89,485 10 6
c. Subordinate Forest and Depôt Establishments	.....	28,790 6 10	28,505 7 3	41,502 1 0	30,267 7 5	42,927 7 10	35,477 7 6	15,145 13 1	2,22,616 2 11
d. Office Establishments	8,174 6 6	2,789 3 4	3,159 4 11	3,158 11 8	2,147 5 5	3,178 11 4	3,259 15 4	2,514 2 11	28,381 13 5
e. Deputation and Special Allowances ...	420 0 0	.....	240 0 0	.....	.....	326 6 0	.....	9 0 0	995 6 0
Total B, I. ...	33,544 6 6	41,626 1 9	43,813 2 3	62,495 12 8	34,375 2 4	67,957 9 2	54,247 14 2	27,319 0 0	3,65,379 0 10

FORM No. 61—*continued.*

Budget Heads.	Direction.	East Khándesh Division.	West Khándesh Division.	Násik Division.	Ahmednagar Division.	Poona Division.	Sátára Division.	Sholápur Division.	Total for the Forest year 1892-93.
EXPENDITURE—*continued.*	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
B.—ESTABLISHMENTS—*continued.*									
II.—Travelling Allowances—									
a. Conservators	3,000 0 0	.....	.....	.....	.....	.....	.....	.....	3,000 0 0
b. Superior Officers	7 11 10	2,062 6 4	2,949 13 11	3,236 13 2	450 0 0	3,643 4 0	3,176 12 1	2,272 0 0	17,798 13 4
c. Subordinate Forest and Depôt Establishments	.....	2,057 14 5	1,636 3 2	2,494 8 11	2,145 13 10	2,130 0 6	2,296 0 10	1,100 10 3	13,861 3 11
d. Office Establishments	1,906 12 10	880 15 2	1,027 5 11	1,260 7 5	911 9 0	1,106 2 0	1,146 6 8	936 4 9	9,175 15 9
Total B, II ...	4,914 8 8	5,001 3 11	5,613 7 0	6,991 13 6	3,507 6 10	6,879 6 6	6,619 3 7	4,308 15 0	43,836 1 0
III.—Contingencies—									
a. Stationery	32 8 0	453 2 5	452 8 5	846 13 6	519 12 9	640 2 4	567 10 6	292 3 3	3,804 13 2
b. Carriage of Tents and Records ...	413 2 0	255 10 9	288 0 0	463 2 8	200 0 0	307 1 9	416 12 0	129 8 0	2,473 5 2
c. Rents, Rates and Taxes	600 0 0	373 11 9	339 4 7	87 0 8	390 0 0	355 0 0	117 15 8	33 15 6	2,297 0 2
d. Pay of Police Guards	.....	.....	.....	.....	.....	.....	.....	.....	.....
e. Official Postage	518 8 6	854 4 6	778 13 0	1,108 14 0	793 4 0	1,129 1 0	1,200 7 0	436 10 0	6,819 14 0
f. Sundries	268 5 5	458 15 4	951 15 1	239 4 11	84 1 6	211 8 2	485 2 2	57 3 9	2,756 8 4
Payments to Officers of other Provinces ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total B, III ...	1,832 7 11	2,395 12 9	2,810 9 1	2,745 3 9	1,987 2 3	2,642 13 3	2,787 15 4	949 8 6	18,151 8 10
Total B, ESTABLISHMENTS ...	40,291 7 1	49,023 2 5	52,237 2 4	72,232 13 11	39,869 11 5	77,479 12 11	63,655 1 1	32,577 7 6	4,27,366 10 8
GRAND TOTAL OF EXPENDITURE ...	43,629 12 0	68,044 3 6	80,862 11 11	87,538 14 7	53,687 7 1	1,26,043 6 4	86,575 3 4	41,610 6 8	5,87,992 1 5

No. $\frac{F.}{16180}$

Forwarded to the Conservator of Forests, Central Circle, under Section 267 of the Forest Department Code, with eight divisional summaries.

Office of the Accountant General, Bombay, dated 8th September 1893.

A. F. COX,
Accountant General.

FORM No. 62.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Annual Account Current for the year 1892-93.

	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To Opening Balance	.....	322 1 3	1.—Refunds and Drawbacks—Refunds—Divided Heads, Forest	.....	1,754 5 0
„ VIII.—Assessed Taxes—Income Tax—Deductions by Government from Salaries and Pensions ...	.....	3,486 9 1			
„ IX.—Forest (as per Summary) ...	.....	8,23,495 1 11	11.—Forest (as per Summary)	.....	5,87,992 1 5
„ XII.—Interest—					
Interest on Arrears of Revenue ...	.....	142 9 4	19.—Law and Justice— Jails, District Jails, Contingencies ..	.....	.....
„ XV.—Law and Justice—General Fees, Fines and Forfeitures—					
Magisterial Fines	.....	3 0 0	Revenue Deposits (Forests)	.....	21,164 14 11
„ XXIII.—Stationery and Printing—			Cheques and Bills (Forest Cheques cancelled).	.....	1,608 13 3
Stationery Receipts—					
Sale-proceeds of Stationery Boxes	.....	.....	Advances Recoverable—		
Other Press Receipts—			Forest Advances	3,71,815 12 2	.....
Government Central Press ...	.....	4 4 3	Tentage Advances	.....	.....
„ XXV.—Miscellaneous—			Objection Book Advances ...	347 13 6	.....
Sale-proceeds of old Stores and Materials, 1 Provincial ...	.....	7 6 0			3,72,163 9 8
„ Revenue Deposits (Forest)	.....	25,840 10 3	Cash Recoveries	.....	12,741 13 5
„ Cheques and Bills (Departmental cheques), Forest...	.....	5,78,282 4 4			
„ Advances Recoverable—			Forest Remittances—		
Forest Advances...	3,62,610 13 10	.....	Remittances to Treasuries ...	8,37,639 5 10	.....
Tentage Advances	.....	.....	Inter-divisional Transfers... ...	8,958 2 3	.....
Objection Book Advances	357 6 0	.....	Inter-departmental Transfers ...	.....	.....
		3,62,968 3 10			8,46,597 8 1

FORM No. 62—*continued.*

	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To Cash Recoveries	.....	12,741 13 5	Account Current—		
„ Forest Remittances —			Account between Bombay and Military, Bombay—		
Remittances to Treasuries	492 14 6				
Inter-divisional Transfers	32,548 9 3		IV.—Items adjustable by Military ...	.....	.....
Inter-departmental Transfers ...	2,799 1 2				
		35,840 8 11	Account between Bombay and Public Works Department, Bombay—(Ordinary Branches)—		
„ Bombay Uncovenanted Service Family Pension Fund, Widows' Branch ...	.....	2,299 4 9			
„ Account between India and Bombay —			IV.—Items adjustable by Public Works Department	.....	826 12 2
III.—Items adjustable by India—			Account between Bombay and Public Works Department (Railway Branch) Railway—		
Bengal Military Fund	.....	.....			
„ „ Orphan Fund ...	.....	.....			
Bengal Uncovenanted Service Family Pension Fund...	.....	.....	IV.—Items adjustable by Public Works Department	.....	1,098 0 0
„ Account between Bombay and Public Works Department, Bombay—					
IV.—Payments into Treasuries by Civil Officers on account of Public Works Department	.....	1,148 8 2	Closing Balance ...		634 7 7
Total ...	.....	18,46,582 5 6	Total	.....	18,46,582 5 6

No. $\frac{F.}{16177}$

Forwarded to the Conservator of Forests, Central Circle, under Section 267 of the Forest Department Code.

Accountant General's Office,
Bombay, 8th September 1893.

A. F. COX,
Accountant General.

FORM No. 63.

FORM No. 63.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Revenue received and outstandings on account of Revenue during 1892-93.

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	REMARKS.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
East Khándesh.	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	.....	10,152 2 3	10,152 2 3	10,152 2 3	.....	
	b. Firewood and charcoal	.....	29,778 3 0	29,778 3 0	29,778 3 0	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ...	.....	.....	.....	.....	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	.....	6,023 8 0	6,023 8 0	6,023 8 0	.....	
	b. Firewood and charcoal	.....	10,710 10 6	10,710 10 6	10,710 10 6	.....	
	c. Bamboos	.....	10,122 5 11	10,122 5 11	10,122 5 11	.....	
	d. Grazing and fodder grass ...	.....	75,173 5 11	75,173 5 11	75,173 5 11	.....	
	e. Other minor produce	.....	1,665 1 0	1,665 1 0	1,665 1 0	.....	
	III.—Drift and Waif Wood and Confiscated Forest Produce	.....	528 11 8	528 11 8	528 11 8	.....	
	Total ...	.....	1,44,154 0 3	1,44,154 0 3	1,44,154 0 3	.....	
West Khándesh.	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	7,819 0 0	56,741 15 8	64,560 15 8	63,192 4 2	1,368 11 6	
	b. Firewood and charcoal	.....	12,432 12 0	12,432 12 0	12,432 12 0	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ...	.....	.....	.....	.....	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	.....	17,300 8 0	17,300 8 0	17,300 8 0	.....	
	b. Firewood and charcoal	.....	8,542 1 6	8,542 1 6	8,542 1 6	.....	
	c. Bamboos	.....	4,731 5 0	4,731 5 0	4,731 5 0	.....	
	d. Grazing and fodder grass ...	.....	1,10,306 6 6	1,10,306 6 6	1,10,306 6 6	.....	

	e. Other minor produce	.....	15,784 15 6	15,784 15 6	15,784 15 6	.....
	III.—Drift and Waif Wood and Confiscated Forest Produce	.....	701 7 0	701 7 0	701 7 0	.....
	Total ...	7,819 0 0	2,26,541 7 2	2,34,360 7 2	2,32,991 11 8	1,368 11 6
Násik ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*					
	a. Timber	14 2 0	1,110 6 0	1,124 8 0	1,124 8 0	.....
	b. Firewood and charcoal	.....	3,321 8 0	3,321 8 0	3,321 8 0	.....
	c. Bamboos	.....	.....	.....	.....	.....
	d. Sandalwood	.....	.....	.....	.....	.....
	e. Grass and other minor produce ...	305 2 9	924 3 9	1,229 6 6	773 8 9	455 13 9
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
	a. Timber	442 8 0	29,903 4 2	30,345 12 2	30,345 12 2	.....
	b. Firewood and charcoal	.....	3,868 13 3	3,868 13 3	3,868 13 3	.....
	c. Bamboos	.....	6,188 11 10	6,188 11 10	6,188 11 10	.....
	d. Grazing and fodder grass ...	477 0 0	59,377 3 3	*59,854 3 3	59,377 3 3	23 0 0
	e. Other minor produco	90 0 0	1,774 2 4	†1,864 2 4	1,774 2 4	.....
	III.—Drift and Waif Wood and Confiscated Forest Produce	.....	206 14 3	206 14 3	206 14 3	.....
	Total ...	1,328 12 9	1,06,675 2 10	1,08,003 15 7	1,06,981 1 10	478 13 9
Ahmednagar ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*					
	a. Timber	.....	7,872 14 3	7,872 14 3	7,872 14 3	.....
	b. Firewood and charcoal	.....	635 2 6	635 2 6	635 2 6	.....
	c. Bamboos	.....	.....	.....	.....	.....
	d. Sandalwood	.....	.....	.....	.....	.....
	e. Grass and other minor produco ...	.....	783 12 0	783 12 0	783 12 0	.....
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
	a. Timber	.....	266 12 11	266 12 11	266 12 11	.....
	b. Firewood and charcoal	.....	3,846 3 4	3,846 3 4	3,846 3 4	.....
	c. Bamboos	.....	772 10 9	772 10 9	772 10 9	.....
	d. Grazing and fodder grass ...	.....	43,372 6 6	43,372 6 6	43,372 6 6	.....
	e. Other minor produce	.....	1,479 2 0	1,479 2 0	1,479 2 0	.....
	III.—Drift and Waif Wood and Confiscated Forest Produce	.....	145 8 11	145 8 11	145 8 11	.....
	Total ...	.....	59,174 10 2	59,174 10 2	59,174 10 2	.....

* Out of this sum the amount of Rs. 454 has been written off.
† Out of this sum the amount of Rs. 90 has been written off.

FORM No. 63—*continued.*

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Poona	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	.....	26,543 9 0	26,543 9 0	26,543 9 0	.....	
	b. Firewood and charcoal	15 7 11	820 6 0	835 13 11	835 13 11	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ...	.....	72 12 8	72 12 8	72 12 8	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	.....	1,394 13 3	1,394 13 3	1,394 13 3	.....	
	b. Firewood and charcoal	262 4 0	7,824 13 9	*8,087 1 9	8,002 1 9	.....	* Rs. 85 written off as per Conservator of Forests' No. 601, dated 4th April 1893.
	c. Bamboos	.....	1,476 10 3	1,476 10 3	1,476 10 3	.....	
	d. Grazing and fodder grass ...	.....	43,137 9 6	43,137 9 6	43,061 13 6	75 12 0	
	e. Other minor produce	10 0 0	4,623 9 4	4,633 9 4	4,633 9 4	.....	
	III.—Drift and Waif Wood and Confiscated Forest Produce	.....	710 2 1	710 2 1	710 2 1	.....	
	Total ...	287 11 11	86,604 5 10	86,892 1 9	86,731 5 9	75 12 0	
Sátára ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	.....	9,058 6 2	9,058 6 2	9,058 6 2	.....	
	b. Firewood and charcoal	.....	4,910 0 9	4,910 0 9	4,910 0 9	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ...	.....	16,945 1 0	16,945 1 0	16,945 1 0	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	.....	12,340 13 3	12,340 13 3	12,340 13 3	.....	
	b. Firewood and charcoal	.....	325 5 6	325 5 6	325 5 6	.....	
	c. Bamboos	.....	1,109 12 7	1,109 12 7	1,109 12 7	.....	
	d. Grazing and fodder grass ...	.....	36,760 10 0	36,760 10 0	36,760 10 0	.....	

	e. Other minor produce	.....			3,045	4	9	3,045	4	9	3,045	4	9	.....		
	III.—Drift and Waif Wood and Confiscated Forest Produce	.....			98	9	11	98	9	11	98	9	11	.....		
	Total ...	.....			84,593	15	11	84,593	15	11	84,593	15	11	.....		
Sholápur ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*															
	a. Timber	.....			.....			.....			.....			.....		
	b. Firewood and charcoal	.....			2,103	5	0	2,103	5	0	2,103	5	0	.....		
	c. Bamboos	.....			.....			.....			.....			.....		
	d. Sandalwood	.....			.....			.....			.....			.....		
	e. Grass and other minor produce ...	.....			.....			.....			.....			.....		
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—															
	a. Timber	.....			11,154	8	6	11,154	8	6	11,154	8	6	.....		
	b. Firewood and charcoal	.....			494	6	1	494	6	1	491	6	1	3	0	0
	c. Bamboos	.....			0	8	0	0	8	0	0	8	0	.....		
	d. Grazing and fodder grass ...	70	0	0	25,736	12	8	25,806	12	8	24,088	4	8	1,718	8	0
	e. Other minor produce	.....			66	11	4	66	11	4	66	11	4	.....		
	III.—Drift and Waif Wood and Confiscated Forest Produce	.....			26	6	6	26	6	6	26	6	6	.....		
	Total ...	70	0	0	39,585	10	1	39,652	10	1	37,931	2	1	1,721	8	0
Total, Central Circle.	*I.—Timber and other Produce removed from the Forests by Government Agency—*															
	a. Timber	7,833	2	0	1,11,479	5	4	1,19,312	7	4	1,17,943	11	10	1,368	11	6
	b. Firewood and charcoal	15	7	11	54,001	5	3	54,016	13	2	54,016	13	2	.....		
	c. Bamboos	.....			.....			.....			.....			.....		
	d. Sandalwood	.....			.....			.....			.....			.....		
	e. Grass and other minor produce ...	305	2	9	18,725	13	5	19,031	0	2	18,575	2	5	455	13	9
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—															
	a. Timber	442	8	0	78,384	4	11	3,826	12	1	78,826	12	1	.....		
	b. Firewood and charcoal	262	4	0	35,612	[redacted]		2,874	9	11	35,786	9	11	3	0	0
	c. Bamboos	.....			24,402	0	4	24,402	0	4	24,402	0	4	.....		
	d. Grazing and fodder grass ...	547	0	0	3,93,864	6	4	3,94,411	6	4	3,92,140	2	4	1,817	4	0
	e. Other minor produce	100	0	0	28,438	14	3	28,538	14	3	28,448	14	3	.....		
	III.—Drift and Waif Wood and Confiscated Forest Produce	.....			2,417	12	4	2,417	12	4	2,417	12	4	.....		
	Grand Total ...	9,505	8	8	7,47,326	3	3	7,56,831	11	11	7,52,557	14	8	3,644	13	3

Note.—The revenue under Budget Heads IV and V is Rs. 37,423-2-4 and Rs. 33,514-0-11, respectively. This has not been shown in the statement in detail, as there are no outstandings against these heads. The total amount realized during the year is Rs. 8,23,495-1-11.

Poona, 1st November 1893.

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

FORM No. 64.

FOREST DEPARTMENT, BOMBAY, CENTRAL CIRCLE.

Outstandings and Liabilities on account of Contractors and Disbursers for the Forest year 1892-93, extending from 1st April 1892 to 30th June 1893.

Division.	DEPARTMENT DEBTOR.			DEPARTMENT CREDITOR.			BALANCE DUE.		REMARKS.
	At commencement of year.	Recoveries in cash and value of supplies and work done during year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (outstandings).	By Department (liabilities).	
1	2	3	4	5	6	7	8	9	10
Contractors.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
East Khándesh	.....	.....	.....	.....	.....	.....	.....	...	
West Khándesh	.....	.....	.....	.....	.....	.....	.....	...	
Násik	.....	1,559 1 2	1,559 1 2	.....	1,600 0 0	1,600 0 0	40 14 10	...	
Ahmednagar	.....	.....	.....	.....	.....	.....	.....	...	
Poona	.....	.....	.....	.....	.....	.....	.....	...	
Sátára	.....	.....	.....	.....	.....	.....	.....	...	
Sholápur	.....	.....	.....	.....	.....	.....	.....	...	
	.....	1,559 1 2	1,559 1 2	.....	1,600 0 0	1,600 0 0	40 14 10	...	
Disbursers.									
East Khándesh	.....	46,634 0 8	46,634 0 8	0 6 11	47,535 10 10	47,536 1 9	902 1 1	...	
West Khándesh	.....	63,344 4 11	63,344 4 11	500 0 1	64,879 15 2	65,379 15 3	2,035 10 4	...	
Násik	.....	62,419 15 4	62,419 15 4	702 9 9	63,862 13 0	64,565 6 9	2,145 7 5	...	
Ahmednagar	.....	43,047 15 1	43,047 15 1	.....	44,513 14 8	44,513 14 8	1,465 15 7	...	
Poona	.....	64,604 1 4	64,604 1 4	.....	66,189 13 3	66,189 13 3	1,585 11 11	...	
Sátára	.....	62,289 9 5	62,289 9 5	50 0 0	63,769 14 7	63,819 14 7	1,530 5 2	...	
Sholápur	.....	18,711 13 11	18,711 13 11	.....	19,463 10 8	19,463 10 8	751 12 9	...	
Total Disbursers ...	.....	3,61,051 12 8	3,61,051 12 8	1,253 0 9	3,70,215 12 2	3,71,468 12 11	10,417 0 3	...	
Grand Total ...	.....	3,62,610 13 10	3,62,610 13 10	1,253 0 9	3,71,815 12 2	3,73,068 12 11	10,457 15 1	...	

Accountant General's Office, Bombay, Dated 8th September 1893.

No. F. 16175

Forwarded to the Conservator of Forests, Central Circle, under Section 267 of the Forest Department Code.

A. F. COX,
Accountant General.

FORM No. 65.

Forest Department, Bombay, Central Circle.

Financial Results of the year 1892-93.

Division.	Timber and other Produce removed from the Forests by Government Agency.		Other Revenue.		Formation, Protection and Improvement of Forests.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
1	2	3	4	5	6	7	8	9
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
East Khándesh	39,930	10,310	1,27,307	9,474	56,569	1,67,237	76,353	
West Khándesh	75,625	10,293	1,80,163	10,640	72,394	2,55,788	93,327	
Násik	5,220	2,697	1,09,741	5,214	85,862	1,14,961	93,773	
Ahmednagar	9,292	3,156	51,964	4,130	50,557	61,256	57,843	
Poona	27,452	6,026	69,161	3,734	1,22,517	96,613	1,32,277	
Sátára	30,913	12,501	56,874	3,436	74,793	87,787	90,730	
Sholápur...	2,103	748	37,750	1,220	41,721	39,853	43,689	
Total ...	1,90,535	45,731	6,32,960	37,848	5,04,413	8,23,495	5,87,992	

A. T. SHUTTLEWORTH,
Conservator of Forests, Central Circle.

Poona, 1st November 1893.

The cost of topography during the period reported on, on both the 8″ and the 16″ scale per square mile, was Rs. 139-0-11 and Rs. 189-12-3, against Rs. 132-9-9 and Rs. 187-6-4 in the preceding year. As remarked by the Conservator, the difference in the cost is very small.

Prosecutions—Para. 56.

7. During the fifteen months, the total number of cases for trial was 1,524; and, deducting from these 122 cases which were pending trial at the close of the year, 1,402 cases were disposed of, with the result that convictions were obtained in 1,009 cases, and in 393 cases acquittals were recorded. The number of persons convicted and punished was 2,436, against 2,489 in the preceding year; while the number acquitted amounted to 1,267, against 889 in the year 1891-92. The number of prosecutions and acquittals rose from 926 and 220 to 1,177 and 330 respectively, (*vide* para. 58); while the percentage of failures in prosecutions increased from 23·7 to 28·0. As in the previous year, the largest number of prosecutions appears against the Poona District, and the smallest against East Khándesh. There is an increase in the percentage of failures in the case of East Khándesh, Násik, Poona, and Sátára; but an improvement in the case of West Khandesh, Ahmednagar, and Sholápur. Various causes have been assigned to explain the increase in the number of prosecutions. With reference to Khándesh, it is stated that the increase is due to the fact that several cases of evasion of payment of duty on foreign timber, imported into the District, were prosecuted on this occasion, whereas in the preceding year those cases were treated under Section 67. The increase in Poona is attributed to the fact that under Government Resolution No. 8626, dated the 30th November 1892, over 300 cases of trespass by cattle under clause (*d*) of Section 25 of the Forest Act were sent up to Magistrates for trial, instead of being compounded as heretofore. The increase in the percentage of failures is attributed in some cases * * * to erroneous interpretation of the law, and undue leniency, on the part of the trying authorities. How far these explanations may be correct, it is impossible to say, without a scrutiny of the record and proceedings in each case. But the obvious course for the Forest Department, when they believe that there has been a failure of justice, appears to be to bring a few typical cases prominently to the notice of the District Magistrate, in view to his taking such further action as may seem just and proper under the circumstances of each case.

Cases compounded under Section 67.—Paras. 60 to 68.

8. Compositions under Section 67 of the Forest Act were allowed in 9,647 cases during the fifteen months under report. Comparing the figures for two years, as given in para. 62, it appears that the number of compounded cases shows a striking decrease in all the Forest divisions except Poona, where it shews a small increase; and this is no doubt due to the orders issued by Government in 1892, enjoining the exercise of due discretion and caution in settling cases under Section 67. The total number of cases compounded in 1891-92 is put down in para. 61 as 11,825, whereas in para. 62 it is given as 11,313; and, as the year 1891-92 covers in both cases a period of twelve months, it is not understood why the figures should vary as they do. The amount realised from the compounded cases (para. 63) was Rs. 27,019, of which more than 50 per cent. was contributed by Násik and Poona. Rs. 1,209 were paid by way of rewards to persons who helped in the detection of offences (para. 64). The maximum amount of reward was Rs. 18, and the minimum was one rupee. Out of 11,464 cases sent up to the Divisional Forest Officers for consideration under Section 67 of the Forest Act, 9,647 were disposed of by acceptance of compensation, and 1,417 were let off with a warning. Of the cases let off with a warning, a large proportion appears against Násik and Poona. The maximum amount of compensation accepted under Section 67 was Rs. 50 (para. 66); and the minimum was one rupee. More than 47 per cent. of the total number of cases in which compensation was accepted, fell under the one-rupee category.

Fire Protection—Paras. 69 to 78.

9. The figures given in the table embodied in paragraph 69 show that, out of the forest area placed under protection against fire, only 356,773 acres of land were burnt by fire during the fifteen months, against 689,793 in the year 1891-92. This satisfactory result appears to have been brought about partly by the frequent fall of rain between November 1892 and June 1893, and partly by the various preventive measures adopted by the Forest Department (para. 70).

Cattle impounded.—Para. 81.

10. The numbers of cattle impounded in 1891-92, (*a*) for trespassing into closed areas, and (*b*) for grazing without passes in open areas, were 2,02,255 and 1,37,041 respectively. A comparison of these figures with those of the period under report shews that there has now been an increase of 37,873 under the former class, and of 5,290 under the latter. Allowance has to be made for the fact that the figures now reported relate to a period of fifteen months, and have to be compared with the figures for twelve months. And, this allowance being made, there seems to be a decided improvement in the direction of less infringement of the law.

Departmental operations.—Paras. 164, &c.

11. The receipts on account of felled timber amounted to Rs. 1,17,944 during the period under report, against Rs. 1,10,351 in 1891-92. The sale proceeds of fire-wood amounted to Rs. 54,017, against Rs. 37,113 in the previous year, (para. 171). But the realisations on account of other minor produce,—in the districts of Násik, Ahmednagar, Poona, and Sátára, only,—came to only Rs. 18,502, against Rs. 30,021 in 1891-92 (para. 175). The marked decrease in receipts on account of minor produce is attributed by the Conservator (paras. 177 to 179) to the poor and indifferent outturn of hirdas, coupled with smuggling and with the low rates at which the hirdas were sold.

Free grants of timber.—Para. 189.

12. Free grants of timber were made by Revenue Officers in the districts of West Khándesh, Násik, Poona, and Sátára, to the total amount of Rs. 1,496, against Rs. 1,949 in 1891-92.

Financial Results.—Paras. 194, &c.

13. The following table shows the progress in financial results during the ten years ending with the year under report :—

Year.	Receipts.	Expenditure.	Net Revenue.
	Rs.	Rs.	Rs.
1883-84	9,58,314	5,11,401	4,46,912
1884-85	10,08,725	6,90,087	3,18,637
1885-86	10,37,296	6,63,639	3,73,656
1886-87	9,13,100	6,87,864	2,25,236
1887-88	9,68,625	7,23,135	2,45,489
1888-89	11,60,768	7,27,412	4,33,356
1889-90	11,85,540	7,05,357	4,80,183
1890-91	12,57,501	7,35,704	5,21,797
1891-92	13,62,427	7,17,394	6,45,033
1892-93	8,23,495	5,87,992	2,35,503

Except in the year 1886-87, there has been a steady increase from year to year in the gross receipts, which rose from over nine and a half lákhs in 1883-84 to more than thirteen and a half lákhs in 1891-92. The marked increase in expenditure in 1884-85 is attributable to revision of the superior Forest staff: since then, the expenditure has not risen in proportion to the increase in receipts ; and so a proportionately large increase is noticeable in the figures of net revenue. The apparent decline in the receipts and expenditure of the period under report is due to the splitting up of the old Northern Circle into two circles, called, respectively, the Northern Circle and the Central Circle, and to the transfer of the former to a separate charge, under Government Resolution No. 8315, dated the 22nd October 1892. It would be useful if, in his next report, Mr. Shuttleworth would substitute, for the figures given just above from 1883-84 to 1891-92, separate figures for the Central Circle as it now stands.

14. The report testifies, as usual, to the thorough manner in which Mr. Shuttleworth discharges his duties.

J. F. FLEET,
Commissioner, in charge C. D.

SOUTHERN CIRCLE.

No. 4758 OF 1893-94.

FROM

J. L. L. MACGREGOR, ESQUIRE,
Conservator of Forests, Southern Circle ;

To

THE CHIEF SECRETARY TO GOVERNMENT,
Revenue Department,
Bombay.

Camp Ratnágiri, November 28, 1893.

SIR,

I have the honour to submit the Forest Administration Report of my Circle for 1892-93, together with its subsidiary statements.

2. I regret the delay in sending the report, which could not possibly be avoided.

3. It is due to the change of the "forest-year," which now ends on June 30 instead of March 31. The financial statements for the forest-year ending 30th June, 1893, required by Section 267 of the Forest Code, were not received from the Accountant General until September 11, 1893, and the report has taken about 9 weeks to pass through the Press.

I have the honour to be,
Sir,
Your most obedient Servant,
J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

THROUGH THE COMMISSIONER, SOUTHERN DIVISION.

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FOREST ADMINISTRATION REPORT OF THE SOUTHERN CIRCLE, BOMBAY PRESIDENCY, FOR THE YEAR 1892-93.

INTRODUCTION.

A new forest year having been introduced under Government Resolution No. 5506 dated 6th July, 1892, results are given in this report for a period extending from 1st April, 1892, to 30th June, 1893.

2. During the year the superior staff was reorganized, and new rules regarding the relations between Revenue- and Forest-Officers were introduced.

3. Under the reorganization of the staff, one Conservatorship was abolished, and the 2nd grade Conservator was reduced to the 3rd grade.

4. The following exhibits the old and the new scale of the upper and lower controlling staff for the whole Presidency:—

Designation.	Old Scale.			New Scale.			Monthly increase.	Monthly decrease.
	Number.	Monthly pay of each.	Monthly total.	Number.	Monthly pay of each.	Monthly total.		
		Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
Conservator of Forests, 1st grade	1	1,500	1,500	1	1,600	1,600	100	...
Do. Do. 2nd do.	1	1,250	1,250	...	...	...	...	1,250
Do. Do. 3rd do.	1	1,000	1,000	1	1,100	1,100	100	...
Deputy Conservator of Forests, 1st grade ...	2	900	1,800	3	900	2,700	900	...
Do. Do. 2nd do. ...	3	800	2,400	4	800	3,200	800	...
Do. Do. 3rd do. ...	4	650	2,600	8	650	5,200	2,600	...
Do. Do. 4th do. ...	7	550	3,850	7	550	3,850	...	...
Assistant Conservator of Forests, 1st grade ...	5	450	2,250	4	450	1,800	...	450
Do. Do. 2nd do. ...	3	350	1,050	3	350	1,050	...	..
Do. Do. 3rd do. ...	2	250	500	...	...	...	...	500
Total ...	29	...	18,200	31	...	20,500	4,500	2,200
Sub-Assistant (now Extra Assistant) Conservator of Forests, 1st grade ...	3	200	600	4	350	1,400	800	...
Do. Do. 2nd do. ...	4	175	700	4	300	1,200	500	...
Do. Do. 3rd do. ...	6	150	900	6	250	1,500	600	...
Do. Do. 4th do. ...	...	...	...	5	200	1,000	1,000	...
Total ...	13	...	2,200	19	...	5,100	2,900	...
Grand Total ..	42	...	20,400	50	...	25,600	7,400	2,200
					Net monthly increase Rs. ... or Rs. 62,400 annually.		5,200	

5. Settlement-enquiries were completed for 565 square miles of forests and an additional Forest-Settlement-Officer was appointed for Kánara at the close of the year.

6. Lines of demarcation, separating protected from reserved forest, and aggregating 129 miles in length, were cut and surveyed in the Central and Southern Divisions of Kánara.

7. The Imperial Forest-Survey-Party continued their operations in Kánara and Kolába, and 263 square miles were surveyed at a cost of Rs. 30,631.

8. The work accomplished by the Working Plans' Branch comprised the differentiation and collection of *data* for 19,993 acres of forests in Kánara, at a cost of Rs. 33,991.

9. 589 criminal cases were taken into Court, against 249 in 1891-92, and 909 were compounded by Forest-Officers, against 803 in 1891-92. The increase was satisfactorily accounted for.

10. An appeal was made by one Antáji Támbe from a decision in a case involving the question of the right of Government to teak in occupied *khoti*-lands, and the High Court decided in favour of the *khót*. The circumstances of this case were, however, considered peculiar, and the decision is not, therefore, accepted as a precedent in all cases of a similar nature.

11. Special measures of fire-protection were adopted, and 1,219 square miles were satisfactorily protected.

12. The area closed to all animals was 700 square miles, to browsers 762 square miles, and that open to all animals 3,821 square miles.

13. The number of cattle impounded for trespassing in closed forests amounted to 2,789 as against 4,283 for 1891-92.

14. Natural reproduction was, on the whole, satisfactory in fire-protected areas.

15. The quantity of timber exploited was curtailed because there was a large balance on hand from the previous year's yield, the whole of which could not be sold in that year, owing, apparently, to the poor demand consequent on the agricultural distress that prevailed in parts of the Southern Marátha Country.

16. The myrobollam-collection of the year under report was very poor, owing to the crops having been spoiled by October-rains.

17. The financial results of the year were, on the whole, favourable. Both the gross and net revenues of the year 1892-93 were larger than those of the year before. The receipts of the period under report (April 1, 1892, to June 30, 1893) amounted to Rs. 13,84,371 and the charges to Rs. 8,19,142.

This is the first report submitted to Government under the revised Forest-Code, in which a more elaborate account than that prescribed under the older form is contemplated. The consequence is that I have exceeded the limit of 20 pages.

CHAPTER I.

EXTENSION AND CONSTITUTION OF STATE FORESTS.

(i). ALTERATION OF AREA.

(ii). FOREST SETTLEMENTS.

18. The following table shows the forest-area of the Southern Circle for 1892-93:—

District.	Area on 1st April 1892.		Added during the year.		Excluded or transferred to other heads.		Area on 30th June 1893.		Total Forest area.
	Reserved.	Protected.	Reserved.	Protected.	Reserved.	Protected.	Reserved.	Protected.	
	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.
Kánara	754 78	2,793 357	0 504	1 333	0 128	0 421	754 454	2,794 269	3,549 83
Belgaum	494 362	196 572	...	...	...	...	494 362	196 572	691 294
Dhárwár	171 410	260 258	...	...	...	...	171 410	260 258	432 28
Bijápur	155 76	89 409	...	...	...	...	155 76	89 409	244 485
Kolába	381 286	63 582	...	0 6	...	...	381 286	63 588	445 234
Ratnágiri	20 80	.....	...	...	...	...	20 80	.....	20 80
Total ...	1,977 12	3,404 258	0 504	1 339	0 128	0 421	1,977 388	3,405 176	5,382 564

19. 504 acres were "Reserved," and 1 square mile 333 acres "Protected," in Kánara; 6 acres were added to the "Protected" forests in Kolába; while 128 acres and 421 acres were, respectively, disforested in the "Reserved" and "Protected" forests of Kánara, owing chiefly to mistakes in the original lists, which were rectified.

Kánara.

20. Mr. Sheppard, I. C. S., continued to be Forest-Settlement-Officer, Kánara, and completed the field-work connected with 7 villages of Kárwár and 168 of Sirsi, having a forest area of 23·59 square miles and 431·28 square miles, respectively. The final reports on these forests will, it is expected, be sent in during the present season.

21. Two Settlement-Officers were posted to Kánara, on Mr. Wingate's return from furlough, on the 31st May 1893.

22. The following area was notified under Section 4 of the Forest-Act :—

Acres.	Gunthas.	
601	7	in Ankola.
445	15	in Kárwár.
155,388	2	in Sirsi.
4,557	11	in Kumta.
1,999	29	in Yellápur.

Belgaum and Dhárwár.

23. In Belgaum, no field-work remained to be done. The orders of Government on previous reports have been received since the close of the year.

24. In Dhárwár, the Settlement-Officer reports that he finished the field-work, connected with the conversion into "Reserved", of the "Protected" forests of Dhárwár, Gadag, Karajgi and Bankápur, aggregating 111·8 square miles, and submitted a report on Dhárwár (22 square miles).

25. Mr. Knight further says that he would have been able to do more, but that his time during the travelling-season was cut short, firstly, by an accident in December that detained him at head-quarters for the whole of January, and, secondly, by his deputation to Bijápur in March, which detained him there for nearly 6 weeks.

Bijápur.

26. The settlement was delayed for want of maps. These are now ready for submission together with the final reports.

27. The following table shows the state, at the beginning and end of the year, of the settlement of the forests which were gazetted under Section 34 of the Forest-Act :—

Name of Collectorate.	Class of Forests.	At the commencement of the year. Areas under Section 34 in which private rights have not been enquired into, settled or recorded.	Areas dealt with during the year and sanctioned by Government. Under Section 19, Chapter II of the Forest Act.	Areas dealt with during the year and sanctioned by Government. Under Section 28, Chapter IV of the Forest Act.	Area of Reserved Forests alienated under Section 26.	Area of Protected Forests disforested under Government orders.	At the end of the year. Areas under Section 34 in which private rights have not been enquired into, settled or recorded.
		Sq. m. a.	Sq. m. a.	Sq. m. a.	Sq. m. a.	Sq. m. a.	Sq. m. a.
Kanára	Reserved	214 286	....	....	....	....	214 286
	Protected	2,342 611	....	....	....	....	2,342 611
Bijápur	Reserved	155 76	....	....	....	....	155 76
	Protected	89 409	....	....	....	....	89 409
Kolába	Reserved	11 353	....	....	....	....	11 353
	Protected	.....	....	....	....	....	....
Total ..	Reserved	381 75	....	....	....	....	381 75
	Protected	2,432 380	....	....	....	....	2,432 380

28. Government have passed orders on the settlement-reports on the Ankola (61 $\frac{633}{640}$ square miles), Yellápur (351 $\frac{49}{160}$ square miles) and Kumta (140 $\frac{23}{320}$ square miles) Forests (Government Resolutions No. 1140 of 9th February, 1893, No. 4350 of 17th June, 1893, and No. 6244 of 29th August, 1893). The Forest-Settlement-Officer's proposal to classify the areas partly as "Reserved" and partly as "Protected," was not accepted, and he has been directed to submit revised lists reserving the whole area.

29. The area remaining to be dealt with is :—

	Sq.m.	a.
In Kánara 2,557 square miles 257 acres (given in the table in paragraph 27 above) *minus* 553 square miles 235 acres referred to in the last paragraph	2,004	22
In Kolába	11	353
In Dhárwár (area to be converted into "Reserved") ...	266	286
	2,282	21

30. The settlement of the Belgaum-Forests, referred to in the 35th paragraph of the Administration-Report for 1891-92, has been sanctioned (see paragraph 23 above).

31. As regards the 11 square miles 353 acres of Kolába, the Collector writes that the settlement can be effected on receipt of orders on reports submitted by him.

32. In Bijápur, the state of the settlement-work is the same as that reported in paragraph 36 of the last Administration-Report.

33. Now that two Settlement-Officers have been appointed to Kánara, it is hoped that the settlement-work will advance rapidly.

34. The expenditure incurred on account of settlement during the period under report, amounted to Rs. 37,544, as shown below:—

Not charged to Forests.

	Rs.	Rs.
Salaries and allowances of Forest-Settlement-Officers, Kánara	12,325	
Do. do. Belgaum-Dhárwár ...	16,125	
		28,450

Charged to Forests.

Salaries and allowances of the establishments employed under the Forest-Settlement-Officer, Kánara, and contingencies	3,500	
Do. do. Belgaum-Dhárwár ...	3,633	
		7,133
Compensation ...		1,961
Total ...		37,544

35. The settlement of the year, which is represented by the above expenditure, comprises 565·95 square miles of the area for which field-work has been completed. The cost per square mile of settlements, effected during the year, comes to Rs. 66·3.

36. The total cost for settlement-operations up to 31st March, 1892, amounted to Rs. 2,86,574, and that incurred during the year under report was Rs. 37,544. The average cost of settlement up to date comes to Rs. 133·6 per square mile.

37. The settlement of the *Bet*-question is much to be desired. A Committee composed of Messrs. Betham, Sheppard and Lamb sat at Sirsi in January last, and submitted a report on the subject, which was forwarded to the Commissioner in April.

(iii). DEMARCATION.

(iv). SURVEYS.

38. The demarcation-establishment under the Forest-Settlement-Officer, Kánara, completed the clearing and survey of lines dividing the Protected from the Reserved forests, of Sirsi, which were settled during the previous year. The lines surveyed and demarcated, aggregated 107 miles $7\frac{3}{4}$ furlongs.

39. Field-books showing particulars of the survey and of boundary-marks for 22 villages of Sirsi, as well as maps, were prepared for the use of the village- and Forest-Officers.

40. Twenty-one miles of 30-feet lines, dividing Protected from Reserved forests, were also cleared in the Ankola sub-division of Kánara, and one mile in Mundgod under the supervision of the Forest-Officers. The average cost per mile amounted to Rs. 45.

41. The cost of demarcation amounted, in all, to Rs. 5,243.

42. Excepting for the forests of Kolába and Ratnágiri, exterior boundary-marks are erected and maintained by the Revenue-Department, the Forest-Department paying its share of expenses.

43. The Forest-Survey-Party continued the topographical survey of the Sirsi-forests in the Southern Division of Kánara. During the survey-year ending 30th September, 1892, the details for 195 square miles, on a scale of 4 inches =one mile, were completed at a cost of Rs. 16,657. The triangulation of 200 square miles and traversing of 295 square miles cost Rs. 9,951. The cost incurred, in all, was Rs. 26,608. The cost per square mile of completed area amounted to Rs. 85 for work done on the 4-inch-scale.

44. Sixty-eight square miles were also surveyed, in Kolába, on the 8″ scale, at a cost of Rs. 13,974, or of Rs. 205 per square mile.

45. The *average* cost per square mile of the area surveyed during 1892-93 was Rs. 116.

46. The area completed during the year 1891-92 was 300 square miles on the 8″-scale at a cost of Rs. 35,138. The average cost per mile was, therefore, Rs. 112 against Rs. 205 in 1892-93. The falling-off in the area completed during the past year is attributed by Colonel Hutchinson, the Superintendent, to sickness among the surveying-establishment. It, also, seems that his Assistant was engaged in triangulation in Kánara almost until the close of the year and that, in consequence, he was not available to superintend detail-work elsewhere.

47. The following shows the approximate area already surveyed and that remaining to be surveyed in the several Divisions of the Circle :—

Division.	Area surveyed.	Area remaining for survey.
	Sq. Miles.	Sq. Miles.
Northern Division, Kánara	627	562
Central Division, Kánara	395	677
Southern Division, Kánara	233	1,055
Belgaum	.....	691
Dhárwár	103	329
Bijápur	.....	245
Kolába	84	361
Ratnágiri	.....	20
Total ...	1,442	3,940

48. The survey was commenced in 1886. Since then, the average outturn per annum has been 206 square miles.

49. To complete the special survey of the forests of the Circle, at an average annual rate of progress of 300 square miles, would take 13 years, and the cost would be about Rs. 4,00,000. The survey-charges are a heavy drain on the forest-revenue, and at least double what they would be if details, in the survey of forests of minor importance, not required for forest-purposes, were left out.

50. Appendix in Form 49 of the Forest Code shows the areas surveyed and under survey during the year under report.

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

I.—REGULATION OF MANAGEMENT.

(*a*) Working-Plans and their Control.

51. During the rains, both Working-Plans' parties remained in charge of Mr. Hodgson. From the beginning of the working-season, in November, until December 13, Mr. Murray was in charge of Party I in addition to his duties as

Divisional Officer, Belgaum. During that period, the work of the Party was confined to marking off the inexploitable portions of the area, in Belgaum, from which fuel is obtained for the Southern Mahratta Railway. After clearing and surveying 65 miles of 5-feet rides round the inexploitable portions of this area, and after surveying the *coupes* already exploited, the Party proceeded on February 9 to Sámbráni, in the Northern Division of Kánara, with Mr. Mainwaring, who, on his return from furlough, was placed in charge of the Party.

52. At the beginning of the working-season, in November, Mr. Hodgson was directed to take up the teak-forests of Gund with Party II. On March 4, after collecting the *data*, and forming and surveying compartments, for 9,888 acres of the Gund-series, as the Party was suffering severely from sickness, the completion of that series was deferred, and Mr. Sátáráwálá, with two surveyors and a forester, was despatched to Kolába to mark off *coupes* of the Karjat and Khálápúr Working-Plans; this work occupied them until the end of the season. At the same time, Mr. Hodgson was deputed to assist Mr. Mainwaring in the Supa-táluka of Kánara. He joined that officer at Tátwhál on March 5, and remained with him until the end of the season.

53. The work accomplished by No. II Party during the year was, therefore, the examination, formation of compartments, and collection of *data* necessary for the preparation of a plan, for 9,888 acres in Gund. Also the marking-off of *coupes* in Khálápur and Karjat as laid down in the working-plan for those Ranges for 1892-93.

54. The work done by Mr. Mainwaring's Party, No. I, assisted during March, April and May by Mr. Hodgson, including the survey-work in Belgaum already referred to, was the differentiation and examination of the Addígeri-series of 10,105 acres, the examination of the Singatgeri-series of 17,562 acres, and of Dándéli-series of 15,383 acres. The breaking-up of the area into compartments (differentiation), and the taking-up of test-areas for the two latter series had been previously carried out. Mr. Mainwaring reports that plans for the working of these 3 series will be prepared during the present rainy season (1893).

9884/968/201

55. The statement in paragraph 41 of last year's report is not quite correct. The figures in column 10 show the area for which compartments were formed and enumerations made, but no working-plan had been formed for that area. The heading of the column should have been "area for which *data* for the preparation of working-plans have been collected."

56. Last season's progress was retarded by several circumstances, notably the increase in the proportion of area enumerated to total area dealt with: the increase was the difference between 8 per cent. and 25 per cent. Other retarding circumstances were sickness in the ranks of both parties, changes of Divisional Officers in charge, absence of one Divisional Officer from 12th April until 11th November, 1892, absence for 2 months of part of Party II in Kolába, and want of experience of both Divisional Officers. Mr. Hodgson only joined the service in December, 1890, and was put in charge of Party II in April 1892. Mr. Mainwaring only took over charge in December, when he was quite new to the work and the district; he also suffered from illness.

57. The area for which working-plans have been submitted is 78,317·46 acres. Mr. Bell has submitted a report for 63,569 acres, and Mr. Hodgson one for 14,748 acres. Both these plans had to be returned for revision and resubmission during the current rainy season (1893).

58. The work done in the Circle, up to date, is, therefore, as follows:—

(1) Area for which plans have been submitted, but which are now being revised—78,317 acres.

(2) Area, not noted under (1) for which all the *data* have been collected, and for which plans are to be submitted by the end of the monsoon (1893)—43,052 acres.

(3) Area not included under (1), or (2), but which has been split up into compartments and for which the *data* necessary for framing a plan have been collected (Gund)—9,888 acres.

(4) Area not included under (1), (2) or (3), which has been split up into compartments—20,994 acres.

59. The total area dealt with, including that under (4), is 151,244 acres. The total cost up to date has been Rs. 121,999, and the cost per acre Rs. 0-12-9.

60. To the above must be added the areas in Khálápúr and Karjat for which working-plans have been prepared. These areas aggregating 48,797 acres were handed over from the Northern Circle on the 1st November, 1891.

61. The result of last year's working was:—

	Lines 10'—15' broad.			Linear miles surveyed.	Posts fixed.	Test-trees felled.	Number of compartments formed.	Test-area estimated.	Area for which *data* for the preparation of working-plans were collected.	Total cost incurred.	Cost per acre.
	Cleared of re-growth, &c.	Jungle cut and cleared.	Total cut and cleared.								
		Miles.	Miles.	Miles.	No.	No.	No.	Acres.	Acres.	Rs.	Rs. a. p.
Party I	...	100·12	100·12	105·82	352	82	19	2,708·81	10,105·7	20,238	
Party II	...	40·427	40·427	43·7	784	77	18	937·85	9,994·6	13,753	
								Total...	20,100·3	33,991	1 11 ½

62. The causes of the abnormal increase in cost have been referred to above. The increase in the proportion of test-area to total area examined was, in my opinion, excessive, and need not be continued.

II.—WORKING OF THE YEAR.

(*a*). Communications and Buildings.

63. Form 51 shows the various works constructed during the period under report. The outlay on communications amounted to Rs. 2,353, and on buildings to Rs. 6,268.

64. In the Northern Division of Kánara, a drive 500 feet long, connecting the Haliyál timber-depôt with the main road, was made at a cost of Rs. 261. Two wells were constructed, one in the Haliyál-depôt and the other near the Sámbráni watch-house, for Rs. 300 each. Repairs to existing forest-roads were made (Rs. 249) and to existing watch-houses and other forest-buildings (Rs. 307).

65. In the Central Division of Kánara, the Kannigeri-Udámaki forest-road was repaired and extended by 1·06 miles (Rs. 200). One new forest watch-house was built for Rs. 300, and old watch-houses were repaired (Rs. 1,648). The well at Wadgatti was completed (Rs. 202) and Rs. 384 spent on deepening the well at Kolikeri.

66. In the Southern Division of Kánara, Rs. 507 were spent on repairs to forest watch-houses, &c. Two wells were constructed at a cost of Rs. 340, and the well in the Singanhalli timber-depot completed (Rs. 149).

67. In Belgaum, repairs to the Halshi-Nágargáli forest-road cost Rs. 1,056, and to guard-and rest-houses Rs. 483.

68. In Dhárwár, a depôt-house was built for Rs. 999.

69. In Kolába and Ratnágiri, the expenditure under this head was confined to repairs (Rs. 146).

(*b*). Protection of Forests from Injury.

(1). *General Protection and Breaches of Forest Law.*

70. The following statement shows the number of prosecutions for breaches of Forest Rules during the years 1891-92 and 1892-93 :—

Divisions.	Cases of year 1891-92.							Cases of year 1892-93.							Percentage of failures.	
	Pending in Court on 1st April 1891.	Taken into Court during the year.	Total.	Disposed of by Magistrates during the year.			Pending in Court on 31st March 1892.	Pending in Court on 1st April 1892.	Taken into Court during the year.	Total.	Disposed of by Magistrates during the year.			Pending in Court on 30th June 1893.	1891-92.	1892-93.
				Convictions.	Acquittals.	Total.					Convictions.	Acquittals.	Total.			
Northern Division, Kánara	...	21	21	10	11	21	...	...	119	119	68	48	116	3	52	41
Central Division, Kánara	...	20	20	16	4	20	...	...	18	18	10	8	18	...	20	44
Southern Division, Kanára	1	6	7	5	2	7	...	...	100	*100	83	7	90	...	28	8
Belgaum	4	36	40	27	12	39	1	1	141	142	126	14	140	2	31	10
Dhárwár	...	7	7	6	1	7	...	...	29	29	18	9	27	2	14	33
Bijápur	1	8	9	8	...	8	1	1	14	15	14	1	15	...	...	7
Kolába	5	122	127	103	19	122	5	5	133	138	102	32	134	4	16	24
Ratnágiri	...	29	29	21	7	28	1	1	35	36	17	18	35	1	25	51
Total ...	11	249	260	196	56	252	8	8	589	597	438	137	575	12	22	24

* Ten cases were withdrawn, as the accused died.

71. A large number of cases was instituted in the Northern Division of Kánara, where, in no less than 101 cases, people, in spite of warnings, were caught in the act of taking firewood from the closed area, within the 5-miles-radius round Kárwár. Of these, 45 were dismissed by the Magistrate on the ground that they were "first offences," and in 56 cases the offenders were punished. In regard to these convictions, the Collector remarks that "the punishments do not seem to have been deterrent, as the offence is still, I am sorry to notice, most prevalent in the neighbourhood of Kárwár."

72. Only 14 cases were tried in connection with offences committed in the important forests of the Supa- and Haliyál-ranges, from which all the valuable timber of the Northern Division is obtained. Of these, 8 were cases of incendiarism; and, in 6 out of the 8, convictions were obtained, the offenders in each case getting off with fines. The remaining cases in the Northern Division call for no remark.

73. If it were not for the cases that occurred inside the 5 miles' limit round Kárwár, which concerned only a very small community, the increase in the number of cases that occurred in this Division would call for no remark. It was no doubt necessary to take these cases into Court, as the thieving of wood for sale that goes on in the neighbourhood of Kárwár, and a few other large towns in the vicinity of forests, cannot be arrested by other means.

74. In Belgaum, there was an increase of 105 cases. This is reported to have been entirely due to illicit grazing in the Khánápúr- and Gokak-ranges. In the Khánápúr-range, there were 79 prosecutions for grazing cattle in areas closed for regeneration. Most of the people concerned in these cases were professional graziers *(gaulis)*, and cartmen employed by fuel-contractors, many of whom had been previously punished for similar offences, besides being personally warned by the Divisional Officer.

75. Under the circumstances, it appears that the Divisional Officers of Belgaum and the Northern Division of Kánara could not have acted differently, and the large decrease in the percentage of failures in Belgaum tends to show that the cases there were carefully considered before being taken into Court. The increased percentage in the Northern Division of Kánara is accounted for by the number of cases dismissed in Kárwár, not because proof was wanting, but because the offenders were brought up for trial for the first time.

76. The Divisional Officer, Belgaum, reports that the practice of grazing cattle in areas closed for regeneration was becoming so common in spite of warning, impounding, and compounding, that nothing but prosecution remained to be tried. Sixteen cases of this kind occurred at Nágargáli within the space of 2 months, all the offenders belonging to a small settlement of *gaulis* residing there.

77. In Central Kánara, the percentage of failures was high, but, as the number of cases is small, the percentage is not a very safe guide to the degree of care and judgment exercised by the Divisional Officer in undertaking prosecutions. The Divisional Officer reports that the 6 cases that failed in Yellápur concerned the illicit cutting of *ráb*, and that they were dismissed by the Subordinate Magistrate, because he considered them trivial.

78. It is not easy to say exactly where to draw the line in cases of this kind. Most *ráb* cases are, in themselves, trivial, as regards the value of the produce stolen, and there is a natural reluctance on the part of Magistrates to convict. The degree of culpability of the offenders depends, however, on the persistence with which they and their neighbours carry on illicit loppings and cuttings (for garden-owners do not confine their depredations to leaves, or even small branches). In committing offences of this nature, the garden-proprietors of the Central and Southern Divisions are most persistent, and the collective and cumulative damage done to the forests is serious and extensive. If these 6 cases had not failed, the percentage of failures in the Central Division would have been reduced to 11½.

79. There were 7 cases in Ratnágiri more than in the previous year, and the percentage of failures increased 26 per cent. The increase in the number of cases is due, the Divisional Officer reports, to the failure of warnings and compoundings in previous years and the necessity of resorting to prosecution to stop illicit *ráb*-cutting. The increased percentage of failures is ascribable, in a great measure, to the uncertainty of the law in regard to the rights of occupants in reserved trees. Even in cases in which the accused admitted having cut down reserved trees, the Magistrate acquitted them on the ground that the trees were not the property of Government. The adverse decision of the High Court in the Támbé-case, in which it was ruled that, under Dunlop's proclamation, Government renounced all rights in reserved trees on occupants' lands, must naturally guide the decision of the lower Courts in similar cases. In order to settle the question, steps have been taken to carry out the instructions conveyed in Government Resolution No. $\frac{4227}{60-\text{Confl.}}$ dated 13th June, 1893.

80. A large increase (83) occurred in the number of cases taken into Court in the Southern Division of Kánara. The Divisional Officer reports that it is due to the large number of cases of *soppu* (green leaves, &c., for manure) that occurred. The percentage of failures fell from 29 to 8.

81. In justification of the increase, the Divisional Officer remarks that, in the Siddápur taluka, the jungles have been already destroyed, to a great extent, by garden-cultivators, a statement which is quite true.

82. Appendix 52A shows details of cases of misappropriation of timber and other produce, as required by Government-Resolution No. 7232, dated 12th September, 1892. Appendix 52B shows datails of cases compounded under Section 67 of the Forest Act.

83. The cases dealt with under Section 67 of the Forest-Act were :—

Divisions.	1891-92.				1892-93.			
	Total number of cases disposed of.	Number of cases commuted.	Number of cases discharged.	Amount of compensation recovered.	Total number of cases disposed of.	Number of cases commuted.	Number of cases discharged.	Amount of compensation recovered.
				Rs.				Rs.
Northern Division, Kánara	8	8	...	49	15	13	2	89
Central Division, Kánara	61	60	1	197	22	20	2	103
Southern Division, Kánara	45	45	...	91	4	4	...	53
Belgaum	210	210	...	351	475	475	...	580
Dhárwár	65	65	...	180	37	37	...	83
Bijápur	49	49	...	215	83	83	...	188
Kolába	167	167	...	546	154	154	...	871
Ratnágiri	199	199	...	587	126	123	3	612
Total ...	804	803	1	2,216	916	909	7	2,579

84. Belgaum shows an increase of 265 cases, Bijápur 34, and the Northern Division, Kánara, 5.

85. The large increase in Belgaum was due to offences on account of firewood removed from forests without permit. There were 317 cases in which people, (principally *Lamánis*) who live by collecting and selling firewood under the permit-system, were detected in the act of taking wood, without permits, for sale in towns.

86. Mr. Murray attributes the increase to greater activity on the part of the protective establishment. The fees levied by the Forest-Department are very light (1 anna for a man's load, 9 pies for a woman's, and 6 for a child's), and there is, therefore, no excuse for evading payment; compounding cannot, therefore, be considered a severe mode of dealing with such cases.

87. The compensation, accepted in Belgaum, was light. If the 3 cases involving compensation of Rs. 50, Rs. 60 and Rs. 103 be deducted, there remain Rs. 367-14-3 to be divided amongst 472 cases, or an average of 12½ annas each; and of the total number (475), 417 cases came under the category "Re 1, or under".

88. The increase in the number of cases compounded in Bijápur has not been satisfactorily accounted for by the Divisional Officer, who, as yet, knows nothing of the district. The Collector expresses the opinion that there is no ground for complaint with regard either to the institution of prosecutions, or the working of Section 67 of the Act.

89. In the Northern Division of Kánara, the total number of cases came to only 13, which is a very small number for the largest and most important Division of the Circle.

90. The number of cases in which damages amounting to one rupee, two rupees, and so on, up to the maximum, were recovered under Section 67 of the Forest-Act, is given in Appendix 52C.

91. Appendix 52 shows the number of cases compounded and taken into Court during the period under report. The following shows the figures for 1891-92 and 1892-93 :—

Division.	Taken into Court.		Compounded under Section 67.		Total number of cases.	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
Northern Division, Kánara ...	21	119	8	13	29	132
Central Division, Kánara ...	20	18	60	20	80	38
Southern Division, Kánara ...	6	100	45	4	51	104
Belgaum	36	141	210	475	246	616
Dhárwár	7	29	65	37	72	66
Bijápúr	8	14	49	83	57	97
Kolába	122	133	167	154	289	287
Ratnágiri	29	35	199	123	228	158
Total ...	249	589	803	909	1,052	1,498

92. *Civil Suits.*—An important appeal from the decision of a Subordinate Magistrate was made, in the High Court, by one Antáji Keshav Támbé of Asgo'li, bearing on the question of the right of Government to teak-trees in occupied khoti lands in Ratnágiri. The High Court decided against Government. This decision and its effects on protection have been already referred to above; it is not considered to be generally conclusive, and the general question regarding the rights of occupants has still to be decided.

93. The increase in the number of cases compounded, or brought into Court, was, in some degree, due to the fact that the period now under report comprises 15 months, while the figures for 1891-92 were only for 12 months.

(2). *Protection from Fire.*

94. The usual operations under this head were carried out, and a larger area was fire-traced in all Divisions excepting that of Northern Kánara.

95. The results of the year under report compare favourably with those of the year before, except as regards the cost, which has increased from 16·4 to 19·34 rupees per square mile.

96. The following table shows the results for each Division :—

Division.	Area in Square Miles.			Proportion of failures to area attempted.	Cost.		Proportion of area under fire-protection to total area of Reserves.
	Attempted	Failures.	Protected.		Per square mile protected.	Per acre protected.	
Northern Division, Kánara	509·93	·84	509·09	·17	24·64	7·3	...
Central Division, Kánara...	184·29	3·69	180·6	2·00	39·04	11·7	...
Southern Division, Kánara	73·30	1·78	71·52	2·42	11·55	3·46	...
Belgaum	256·07	3·45	252·62	1·3	7·21	2·16	...
Dhárwár	56·43	5·22	51·21	9·25	12·71	3·81	...
Bijápur	45·31	·08	45·23	·17	11·05	3·31	...
Kolába	92·43	4·13	88·30	4·46	2·04	·61	...
Ratnágiri	20·13	·01	20·12	·05	·44	·13	...
Total in 1892-93 ...	1,238	19	1,219	1·53	19·34	5·8	62·6
Total in 1891-92 ...	1,046	25	1,021	2·39	16·14	4·8	53·2
Increase or Decrease in 1892-93 ...	+192	−6	+198	−·86	+3·2	+1·0	+9·4

97. The most successful, and at the same time cheapest, operations were carried out in Ratnágiri. No doubt the marked success attained there is due to the fact that cattle are excluded from the forest-area and the people have less inducement to set fire to the jungles there than in other parts of the Circle.

98. The cost per square mile in the Central Division, Kánara, has increased from 21·15 to 39·04 rupees. The Divisional Officer has given no satisfactory reason for the increased cost of protection.

99. The cost of operations in the Northern Division, Kánara, also increased from 18·89 to 24·64 rupees, and for this the Divisional Forest-Officer gives no reason.

100. In the Southern Division, Kánara, the expenses were reduced one-half.

101. In Belgaum, the area specially protected was increased from 170 to 252 miles. Unfortunately, great damage was done in the areas closed for regeneration in the Railway-fuel-reserve. The Divisional Officer reports that there is every reason to believe that several of the fires were purposely caused, but the offenders could not be traced. With reference to the areas burnt in the Railway-fuel-reserves, the Divisional Officer adds, "the harm caused by a fire in fuel-cuttings is out of all proportion to that done in ordinary open forest. In the former a large portion of the young growth is completely destroyed, its place being taken by new shoots several years in retard of the age of the unburnt portion. When the plants are not completely destroyed, their leaves are burnt up and not replaced until the ensuing year, whereby a whole year's growth is lost. Unless some special penalty can be imposed upon the villagers, it is doubtful whether any departmental measures will ever be sufficient to check these fires, which render any attempt at a systematic plan of working the fuel-forests absolutely futile."

102. The forests, referred to in the above quotation, which extend to 45,000 acres, are extremely valuable and give an annual nett yield of about Rs. 2-12-0 per acre. With proper protection, they could be made to yield in the course of the next 30 years a much larger

income. The Collector remarks, in connection with this matter, that "probably, as the relations between the Department and the villagers improve, wilful damage of this kind will tend to become less frequent," but that "it is impossible to propose special penalties unless a series of offences is clearly brought home to them." Unfortunately, if it is considered necessary to bring home to individuals the fires they have caused, a series of offences cannot be established, as the experience of several years shows. As regards the relations of the villagers to the Forest-Department, I do not think that they are bad, or that improvement can be looked for in that direction; it is quite natural that they should set fire to the jungles, as long as it is to their immediate interest to fire them and they can do so with impunity. Their object in firing the forest is (1) to induce an early and good crop of grass, (2) to kill trees and so open out the jungle and increase the crop of grass, (3) to obtain manure for their fields in the ash washed down from the forest and (4) to clear the ground for sporting purposes.

103. The following areas are estimated to have escaped fire without adoption of special measures:—

	Acres.
Northern Division, Kánara	507,345
Central Division, Kánara	400,467
Southern Division, Kánara	773,225
Belgaum	277,612
Dhárwár	239,598
Bijápur	127,455
Kolába	224,003
Ratnágiri	10,365
Total ...	2,560,070

104. The area reported as having escaped fire without the taking of special measures amounted to 3,982 square miles, or 74 per cent. of the whole area, during 1891-92. During the year under report, it amounted to 4,000 square miles, or 74·3 per cent. of the whole area.

105. *Northern Division of Kánara.*—In the Haliyál- and Supa-forests, protection is reported to have been very successful. Eleven fires took place in Haliyál, in one of which the offenders were traced. These fires were quickly extinguished, and only a small area was burnt. In Supa, 13 acres were burnt. The offender was prosecuted and fined Rs. 5. Three other fires also occurred, but no trace of the offenders could be found.

106. *Central Division of Kánara.*—The Divisional Officer reports that protection from fire in the Yellápur-and Mundgod-ranges was very successful, but that in Ankola a larger area was burnt than that burnt in 1891-92. The number of fires observed was 68. No offenders were traced.

107. *Southern Division of Kánara.*—In the reserved forests which were protected by fire-lines, 1,344 acres are said to have been burnt. The origin of the fires that occurred has in no case been discovered. The number of cases in which fire was brought to notice was 35.

108. *Belgaum.*—Here, fire-protection has, it is reported, been on the whole eminently successful, although the number of fires was 99 against 64 of the year before.

109. The great damage done in the fuel-reserves in the Khánápur range has already been alluded to.

110. *Dhárwár.*—The area protected was practically the same as that protected in the preceding year. In the specially-protected areas, about 5 square miles are shown to have been burnt. The Divisional Officer attributes the origin of the fires to carelessness on the part of travellers in throwing into the jungle lighted *bidis* and torches, but this cause cannot satisfactorily account for all the fires that occurred. The number of cases in which fires were discovered was 33. No offenders were detected.

111. *Bijápur.*—The closed forests of Bádámi and Bágalkot were specially protected. It is said that only 51 acres were burnt.

112. *Kolába.*—In Kolába, special protection appears to have been very satisfactory; the area attempted is not, however, large enough.

113. *Ratnágiri.*—Here the results were eminently satisfactory.

(3). *Regulation of Grazing and Protection from Cattle.*

114. Under the rules sanctioned in Government Resolution No. 3595, dated 23rd May, 1890, grazing is permitted in the unclosed portions of forest.

Villages which have contributed *gáirán* to the formation of a forest-block are allowed free grazing in the open forest of that block, for all their agricultural cattle. Other village-cattle belonging to cultivators are charged fees varying, according to species, from 1-8 annas a head. Double fees are charged for outside cattle, and to those belonging to professional graziers.

115. The above rules apply to all districts, excepting Kánara, where an uniform rate of 2 annas is charged on all cattle, belonging to villagers other than *gaulis*, that are grazed in open forests; one rupee a head is charged for cattle belonging to professional graziers, and to persons not residing in Kánara.

116. Appendix 54 gives details of areas closed to horned cattle and browsers, as well as those left open for grazing.

117. The area closed to all animals amounted to 700 square miles, to browsers to 762 square miles, and that open to all animals to 3,821 square miles.

118. It should, however, be noted that in the greater part of Kánara there are no browsers, although the forests have not been closed to them. The only browsers that prey on the forests of this circle are sheep and goats. It is satisfactory to see that the raising of the fee for grazing sheep and goats in the Parasgad-táluka of the Belgaum-Division has reduced the number of these animals grazed in the forests from 74,155 to 35,582 without giving rise to complaints. Inám-forests and those belonging to Native States, which are dotted over the Belgaum-district, afford a means to our villagers of providing their browsers with cheaper grazing than that now available in the Government-forests of that district.

119. The area, closed to grazing in 1891-92, was 454.96 square miles. During that year, large areas were thrown open owing to the prevailing scarcity of fodder in the plain-districts.

120. From experience of the general famine in 1876, and the fodder-famine in 1891, I consider that, in times of scarcity, very little good is gained by opening closed areas to cattle in these districts. In the dry zone, whenever the rain is insufficient to produce agricultural crops, it is also insufficient to produce grass-crops, and during the cold and hot months the dried-up leaves of trees in the forest are useless as fodder. In the moist zone, a fodder-famine never occurs, but on the occurrence of one in the Eastern districts, cattle are sooner or later sent west in search of grazing grounds. They are generally in a very debilitated state on arrival in Kánara, and die like flies, and those that do survive a short time are hurried back to their own country before the scarcity has disappeared. The damage done by the influx of thousands of cattle into the jardin-aged forests of Kánara is of course considerable, and of doubtful utility considering the small benefit, if any, derived by their owners from the concession. The latter have a great dread of sending their animals to Kánara and put off sending them there until they have become so starved as to be unable to undergo the fatigues of a long march. For this reason, probably, many of the animals succumb to contagious disease, which is communicated to the local cattle.

121. It may, therefore, be doubted if life is really saved by the opening of closed areas in time of famine, while it is certain that much damage is thereby caused in the famine-tract by the eradication of all the good that has occurred to the forests closed for several years preceding the scarcity. It even seems probable that the effect, if any, of opening closed areas in a famine-year is the reverse of that desired, as the concession may have a tendency to induce owners to put off sending their cattle to better grazing-grounds until the animals are too weak to stand the journey and the altered conditions of climate and fodder in the moist zone. If cattle are sent to the moist zone, they should be sent there not later than the beginning of September.

122. The number of animals impounded during the period under report and during the previous year in open and closed forests, is given below :—

Division.	Number of Animals impounded during 1891-92.			Number of Animals impounded during 1892-93.		
	In open forests.	In closed forests.	Total.	In open forests.	In closed forests.	Total.
Northern Division, Kánara ...	...	173	173	...	207	207
Central Division, Kánara ...	346	194	540	129	417	546
Southern Division, Kánara ...	121	122	243	76	43	119
Belgaum	1,892	1,239	3,131	3,178	1,750	4,928
Dhárwár	686	1,680	2,366	...	...	...
Bijápur	1,279	...	1,279	...	...	...
Kolába	...	763	763	593	...	593
Ratnágiri	119	112	231	...	372	372
Total ...	4,443	4,283	8,726	3,976	2,789	6,765

123. The table shows a considerable increase of impoundings in Belgaum. The small number in the previous year was, however, due to the fact that the forests of Gokák and Parasgad were opened to free-grazing on account of the fodder scarcity of 1891-92, and the number of cattle impounded during that year fell, in consequence, in much the same ratio, in regard to the number impounded during 1890-91, as that in which it rose in 1892-93, as compared with the figures for 1891-92. The number of cattle impounded during 1892-93 was, in fact, less than that reported for 1890-91.

(*c*). Improvement of Forest-Growth.

(*1*). *Natural Reproduction.*

I.—By Seed and II.—By Coppice.

124. *Northern Division of Kánara.*—The Divisional Officer reports that natural reproduction in teak- and blackwood-forests has continued good, but that teak is more backward in reproduction by seed than other species. This is to be expected, and the comparatively-slow natural reproduction of teak from seed will have to be made up for artificially. Mr. Talbot remarked that teak-seedlings were plentiful in the forest in the neighbourhood of the Kátnál, Birchi and Kálánadi streams.

125. The reproduction from stools in the firewood-*coupes* was good.

126. *Central Division of Kánara.*—The Divisional Officer's report affords but little information. He refers to some areas in the Yellápúr-Range in which the reproduction of teak and blackwood was particularly good. In the timber-forests of Yellápur, which have been protected from fire, natural reproduction by seed of teak and other superior species is very satisfactory.

127. *Southern Division of Kánara.*—In the specially-protected forests some signs of natural reproduction by seed were noticed, and teak-seedlings are said to be plentiful in the Bilki-forests, but, generally speaking, reproduction is bad in this Division. This is, in a great measure, owing to the numerous *supári*-gardens and *rán*-lands by which the forests are intersected throughout the greater part of the Division, and which render regeneration and protection from fire very difficult.

128. *Belgaum.*—The reproduction by seed of teak is reported to be satisfactory in the Nágargárli and Kirpoli forests, areas to which teak-seedling-forest is practically confined.

129. In fuel-cuttings, the trees coppice excellently, but have been greatly damaged by fires.

130. In the area (300 acres) fenced in at Hemadge (moist zone) good progress in natural reproduction by seed is noticeable.

131. In the 1,412 acres of scrub jungle at Konnúr in Gokák (dry zone), which were closed two years ago, the improvement from closure is reported to be most marked. Mr. Murray further reports that, whereas in such forests artificial reproduction is expensive and generally unsuccessful, closure is cheaper and successful.

132. *Dhárwár.*—The Divisional Officer reports that, in the cuttings, the reproduction from stools is satisfactory, but that reproduction from seed is very backward.

133. *Bijápur.*—Mr. Bell, who only took charge of the Division last June, reports that the stools, in the Shivpur cutting of last year, are reproducing satisfactorily. Owing to the extreme dryness of the climate, the great demands on the forest, and the difficulty of protection, natural reproduction by seed is very bad.

134. *Kolába.*—Mr. Stewart reports unfavourably of the reproduction by seed of teak and other species, but natural reproduction is, he considers, fairly good in portions of Alibág, Roha and Nágotna.

135. The jungles of Kolába consist almost entirely of coppice including a relatively large quantity of teak, and they coppice well.

136. *Ratnágiri.*—Reproduction by coppice is reported to have been satisfactory; while, that by seed was not. The forests are situated for the greater part on the steepest slopes of the Ghâts on which reproduction is naturally slow. The Divisional Officer reports that, although no seedlings could be discovered in the low-lying pure teak-forest of Dápoli, in that of Málván some seedlings, and in the jungles of Kalamboshi a fine growth of *Terminalia*, was observed.

(2). *Artificial Reproduction.*

137. *Northern Division of Kánara.*—An experiment was made in the planting-out of teak in bamboo-tubes, as it was found that the seedlings taken up and planted out without special protection failed in most cases. 13,132 seedlings were put out in that way. Of these, 7,723 seedlings are reported to be thriving. This experiment was not, however, properly carried out; the plants were first raised in nurseries or taken from the jungles and afterwards placed in bamboo-tubes, instead of being sown in the tubes in order to prevent all handling of the roots.

138. 600 seedlings of *Terminalia tomentosa*, put down in open places in the Kárwár-range, have succeeded.

139. The expenditure incurred in the Division amounted to Rs. 369.

140. *Central Division of Kánara.*—8,683 teak-, 1,991 blackwood- and 1,597 junglewood-plants were put down from nurseries. Of these, 6,237 teak-, 1,242 junglewood- and 1,741 blackwood-plants existed at the close of the year. The operations were particularly successful in the Yellápúr-range, where 4,289 teak-plants, out of a total of 4,418, survived.

141. The following seedlings are also reported to have been obtained from seeds sown in the forests and to be doing well:—

Teak ...	...	...	...	...	2,377
Blackwood	...	...	...	...	336
Junglewood	...	...	...	...	5,210
					7,923

142. The amount expended was Rs. 678.

143. *Southern Division of Kánara.*—The disease which attacked the trees in the Kásarkód casuarina-plantation has again appeared, and many of the trees have died during the year.

144. In Honávar, 25 acres were planted up with teak-seedlings and 1,515 are reported to be flourishing.

145. Seeds of several kinds were collected and sown broadcast by the guards, as usual, but no good was effected.

146. Nothing was expended in this Division.

147. *Belgaum.*—A teak-nursery was made at Nágargáli, and the young plants were put out in an enclosed portion of the forest with a view to testing the behaviour of young plants under different degrees of shade. Several small nurseries were also made in the Khánápur-range, and the plantation at Deshnur was extended from 156 to 180 acres at a cost of Rs. 96; 918 plants of several kinds were put down. These plants together with those previously planted, are reported to be coming on very well.

148. The amount expended in the Division was Rs. 96.

149. *Dhárwár, Bijápur and Kolába.*—No fresh planting was done in these Divisions. The plants that came up from seeds sown broadcast in Bijápur, and referred to in the last Administration-Report, were killed by drought.

150. The expenditure incurred on plantations was Rs. 161 in Dhárwár, Rs. 17 in Bijápur; in Kolába there was no expenditure.

151. *Ratnágiri.*—17,991 seedlings of casuarina, *Terminalia tomentosa*, teak, &c, were planted in the Dápoli-plantation, and a nursery containing 15,615 seedlings was made. About 8 khandis of seed were also collected and sown broadcast by the guards.

152. The amount expended was Rs. 84.

153. *General Remarks.*—The poor results obtained up to the present time from artificial regeneration in the moist zone are, I feel sure, mainly due to the inexperience of the men employed in lifting and planting seedlings. Otherwise, we should not find naturally-sown seedlings flourishing in places in which planted seedlings have proved a complete failure. By sowing seed in bamboo tubes,

and planting out the tubes, it is hoped that greater success will be attained, as no damage can be done in this manner to the delicate fibrils of the roots, on the preservation of which the success of the operation mainly depends.

154. Mr. Haselden was the first to start planting by means of bamboo-tubes, and this may account for the superior results said to have been attained in his Division with teak-plants put down in the Yellápur-range in 1892, 4,289 out of a total of 4,418 having survived up to present time.

155. As regards reproduction, generally, experience seems to show that complete closure and the exclusion of fire are the most effective means of regenerating the forests of the Southern Circle. Artificial regeneration cannot be expected to effect much on extensive areas, although it may be usefully employed as a means of establishing a suitable proportion of superior species and of filling up blanks in the covert. The want of a sufficiently-numerous and skilled departmental staff is a great hindrance to successful regeneration.

(*3*). *Early Thinnings.*

156. In the Northern Division of Kánara, thinnings were made in the teak-plantations of the Kárwár-range, and 4,973 poles were extracted at a cost of Rs. 327. They fetched Rs. 1,371.

(*4*). *Experiments.*

157. In the Southern Division of Kánara, the Divisional Officer reports that seeds of the *Pithecolobium saman* were sown in bamboo-tubes at every náka of the Honávar-range, and that all the seeds have germinated. The trees of this species reared in Kánara, especially in Sirsi and Yellápur, are in a flourishing condition.

(*e*). Extraction and Transport of Major Forest-Produce by Land and Water.

158. The principal produce which is transported by water is that taken down to the Kodibág-depôt near Kárwár from the forests in the immediate neighbourhood of the Kálánadi and its tributary the Káneri. About 81,750 cubic-feet of large teak-timber are extracted in this manner every year. The timber is dragged down to the slopes overhanging the rivers by elephants, slipped into the water, and rafted down to Kodibág.

159. Rivers are also utilized for the transport of small timber and firewood in Kolába, Ratnágiri and Kánara.

160. Produce from other forests is conveyed to depôt in carts, drawn by buffaloes or bullocks.

161. The Southern Mahratta Railway is also utilized to a considerable extent for the local distribution and export of produce.

(*f*). Exploitation of Minor Forest-Produce.

(*1*). *Extraction of Fodder.*

162. The extraction of fodder is quite an insignificant feature in the working of the forests of the Southern Circle. Villagers are generally allowed to remove grass from the open portions of forests in their own villages free of charge. Small patches of valuable grass-lands in Belgaum, Bijápur, Kolába and Ratnágiri are sold by auction, the purchasers making their own arrangements for the cutting and removal of the grass. In the same way, grass is sometimes sold from plantations and closed numbers in Dhárwár. The total amount received annually on account of fodder sold in the above-mentioned manner is only about Rs. 8,174

(*2*). *Grazing.*

163. Grazing is allowed to cattle in the Government forests under the regulations referred to in paragraph 114 of this report.

164. After protection from fire, the regulation of the grazing generally, but more especially in the timber-forests of Kánara, is the most important factor in the maintenance of the forests. Those forests can be treated only by the method of jardinage, which makes satisfactory regulation of the grazing difficult. At present, cattle are allowed to graze almost everywhere in Kánara, but a salient feature of the organization now in progress will be their confinement to sufficient, but limited, areas, and the exclusion from the most important teak-forests of outsiders' cattle, which come from the more open country in the rainy season.

165. In Dhárwár and Bijápur, the gradual closure of about 25 per cent. of the area of the forests was in progress when it was stopped on receipt of

Government Resolutions Nos. 8227 of 1st December, 1891, and 108 of 7th January, 1892. Since then, no progress has been made in this most important direction, but the areas previously closed have remained closed. No improvement can take place in the condition of the vegetation that sparsely covers the rocky hills of Bijápur, and parts of Belgaum and Dhárwár, without a system of periodical closure, to man and beast, strictly enforced.

166. During the financial year, 1892-93, the revenue aggregated Rs. 107,944 against Rs. 91,487 in 1891-92. The slight increase is ascribable to the introduction of the new fee-system ordered in Government Resolution No. 3595 of 23rd May, 1890.

(3). *Miscellaneous Produce.*

167. The principal article of minor produce in Kánara and Belgaum is *harda* (fruit of the *Terminalia chebula*). During the year under report, the *harda* collection was very poor owing to heavy rain in October and November, which spoilt the quality of the crop. The rates obtained were also lower than those in 1891-92. The collection of the two years was :—

	1891-92. Khandis.	1892-93. Khandis.
Northern Division of Kánara	1,536	701
Central Division of Kánara	425	149
Southern Division of Kánara	1,564	1,505
Belgaum Division	5,148	2,891
	8,673	5,246
Rs. ...	1,35,729	97,058

168. The other important articles exploited in the Circle are *shigekái* (pods of *Acacia concinna*), wax, gum, wild pepper and spices, catechu and tárwád-bark (*Cassia auriculata*).

169. The receipts from minor products amounted to Rs. 1,30,292 during the period under report, against Rs. 1,65,012 in 1891-92.

170. The average amount realized during the last 3 years by the sale of each one of the more important minor products is given below and will give a good idea of the importance of each :—

	Rs.
Harda	1,22,721
Spices and pepper	2,935
Catechu	4,562
Honey and wax	4,095
Tárwád-bark	2,088
Shigekái	5,103

171. In December last, Government issued orders laying down certain principles on which minor products should be exploited, and the Collector and Divisional Officer now decide, each year, which species of minor produce shall be sold during the ensuing year, and which kind shall be left for the free consumption of the public.

172. *Hardas* are sold departmentally, but the right to collect other reserved minor produce is generally sold by auction. It is not the best mode of disposing of some kinds of produce (*e.g.*, pepper), but in the present weak state of establishments, it is necessary to avoid departmental operations as much as possible.

CHAPTER III.

GROSS YIELD AND OUTTURN OF FOREST-PRODUCE.

173. The yield for the period under report was as follows :—

Northern, Central and Southern Divisions of Kánara.

174. The large teak exploited, yielded 305,500 cubic-feet against 354,459 cubic-feet in 1891-92; and small teak, such as poles, rafters, &c., aggregated 50,940 cubic-feet against 81,360 cubic-feet.

175. The quantity of large junglewood removed, rose, from 265,756 cubic-feet in 1891-92, to 296,440 cubic-feet in 1892-93, and that of small junglewood, from 5,968 cubic-feet, to 29,844 cubic-feet. The quantity of large blackwood, exploited, also rose, from 24,546 cubic-feet, to 55,551 cubic feet, and that of small blackwood from 137 to 220 cubic-feet.

176. The decrease in the yield of large teak occurs in all three Divisions: in Northern Kánara it amounted to 16,353 cubic-feet: in Central Kánara to 27,517: and in Southern Kánara to 5,089. The decrease of small teak was 13,578 in Northern and 16,487 in Central Kánara. Cuttings were curtailed because there was a large stock of teak-timber on hand owing to a falling-off in the demand for timber in previous years.

177. This falling-off is no doubt partly due to bad agricultural seasons, and general stagnation of trade, but it is also partly due to the competition of Burma-wood, brought by the Southern Mahratta Railway, which is extensively used by private persons and contractors for public works. Burma-teak is much inferior to Kánara-teak for durability, but it is sawn and free from defects that catch the eye, and compares favourably in appearance with the roughly-adzed, more or less defective, timber of our depôts.

178. The increased yield of blackwood is owing to the demand which has somewhat suddenly sprung up for that wood for export to ports on the coast and to Europe, where the timber is used for veneering purposes, and we may, therefore, expect to see the demand for it increase year by year. There is a large supply available in Kánara, but the local demand is small, and the opening-up of outside markets for the surplus is, therefore, a matter of considerable importance. The increased quantity exploited in the Northern Division to meet this demand amounted to 32,215 cubic-feet.

179. The quantity of large and small jungle-wood, exploited during the year under report, was larger by 30,684 cubic-feet.

180. The number of bamboos extracted, rose, from 3,294,192 in 1891-92 to 4,507,910 in 1892-93.

181. The firewood exploited, fell, from 2,025,643, to 1,138,355 cubic-feet. The decrease (931,586) in firewood is met with in the Central Division of Kánara where the contractor, who purchased fuel for export from the Ankola-forests failed to carry out his contract. There was an increase of 19,079 cubic-feet in Northern and 25,219 in Southern Kánara. The quantity supplied from the former Division to the Southern Mahratta Railway-Company, however, fell from 289,000 to 202,232 cubic-feet. The decrease is owing to difficulties of labour and transport in Kánara which makes the exploitation of firewood in larger quantities unprofitable at present prices.

182. There was a slight increase in the outturn of charcoal and sandalwood.

183. The yield of myrabollams decreased, from 3,346 khandis, to 2,319 khándis, for the reason explained above.

Belgaum.

184. The yield of large teak from improvement-cuttings amounted to 18,661 cubic-feet against 4,424 cubic-feet in 1891-92; of junglewood to 4,202, and of blackwood to 688 cubic-feet, against 184 cubic-feet and 4,801 cubic-feet, respectively.

185. The outturn of teak, black- and jungle-wood-poles measured 36,783 cubic-feet, 12,791 cubic-feet and 484 cubic-feet, respectively, against 34,979, 190 and 12,313 cubic-feet. 3,181 cubic-feet of *bábul* were brought in, against 575 cubic-feet in the previous year.

186. The quantity of firewood exploited, shows an increase. The running-fuel for the Southern Mahratta Railway-Company amounted to 3,128,149 cubic-feet against 2,893,400 cubic-feet; lighting-fuel to 33,262 cubic-feet against 9,522 cubic-feet; and the firewood removed for other purposes to 735,823 cubic-feet against 724,422 cubic-feet.

187. The yield of myrobollams fell, from 5,148 khandis in 1891-92, to 2,751 in 1892-93.

188. The number of bamboos rose, from 402,037, to 678,467. The outturn of *shigekái* (pods of *Acacia concinna*) also rose, from 120, to 140 khandis.

Dhárwár.

189. The yield of teak decreased, from 59,635 cubic-feet in 1891-92, to 21,079 cubic-feet in 1892-93; and of jungle- and black-wood-rafters, pieces, &c., and *jarayet*-pieces (agricultural wood) from 10,282, to 5,036 cubic-feet.

190. On the other hand, the quantity of fuel extracted, increased, from 213,722 cubic-feet, to 227,401 cubic-feet, and the number of bamboos, from 335,247, to 465,134. 4 khandis of myrobollams and 3,359 sandalwood-trees were also obtained during the year under report.

191. The decrease in the quantity of timber exploited is due to the large balance in the depôts at the beginning of the year, the proximate causes being the agricultural distress during the previous year and the general depression of trade.

Bijápur.

192. The yield of timber increased, from 2,659 cubic-feet in 1891-92, to 3,069 cubic-feet in 1892-93; that of cart-loads of firewood decreased, from 65,991, to 45,810, and of animal-loads, from 65,656, to 62,440 cubic-feet. But the head-loads of firewood increased, from 104,765, to 106,983 cubic-feet.

Kolába.

193. The yield of teak remained much the same as that of the previous year. The quantity of firewood removed increased, from 113,411 cubic-feet, to 480,814.

Ratnágiri.

194. The timber-yield of teak and junglewood amounted to 69,350 cubic-feet against 128,575 cubic-feet in 1891-92, and of firewood to 154,844 cubic-feet against 26,925. 14 maunds of myrobollams were also exploited during the year under report.

195. Most of the timber cut in Ratnágiri is procured from Khoti-land, and the yield is, consequently, uncertain.

METHODS OF EXPLOITATION.

196. The selection-method is generally adopted in the exploitation of large and small timber. The trees to be cut are marked, before exploitation, by a Forest-officer, and the wood is then removed by a contractor, or departmentally, to a depôt, where it is sold. In Kolába, a good deal of wood is sold standing.

197. Fuel-forests are cut clean, and the produce is sold after stacking at so and so much per 100 cubic-feet.

198. Improvement-fellings are confined to plantations and to the larger and best-stocked forests of Belgaum and Kánara, where large areas are annually taken in hand.

199. The areas over which improvement fellings were carried out aggregated about 250,000 acres. Almost the whole of this area comes under the category of saleable fellings.

200. Bamboos are exploited on the permit-system.

CHAPTER IV.

FINANCIAL RESULTS.

201. The details of the year's transactions are shown in Forms No. 61—65 appended.

202. The receipts and expenditure of the Southern Circle for the period under report, 1st April, 1892, to 30th June 1893, were :—

Receipts.	Charges.			Surplus.
	A.—Conservancy and Works.	B.—Establishments.	Total.	
Rs.	Rs.	Rs.	Rs.	Rs.
1,384,371	460,866	358,276	819,142	565,229

203. The figures for the financial years 1891-92 and 1892-93 were :—

Year.	Receipts.	Charges.			Surplus or net revenue.
		A.—Conservancy and Works.	B.—Establishments.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.
1891-92 ...	1,147,707	437,415	267,816	705,231	442,476
1892-93 ...	1,201,085	388,824	285,773	674,597	526,488
Increase ...	53,378	.....	17,957	.....	84,012
Decrease ...	.....	48,591	.....	30,634	.....

204. Both the gross and the net revenues of the year under report were larger than those of the year before. The increase is met with chiefly in the Northern Division of Kánara and Kolába, and is due to more favourable sales of timber exploited by Government Agency.

205. The following shows the revenue *and* outstandings at the end of the period under report, as well as at the end of the financial years :—

Year.	Amount realized.	Balance due to the Department at the end of the year.	Total.
	Rs.	Rs.	Rs.
Period under report (1st April 1892 to 30th June 1893)	13,84,374	1,78,541	15,62,912
Financial year 1891-92	11,47,707	1,70,206	13,17,913
Do. 1892-93	12,01,085	2,43,963	14,45,048
Difference ...	.....	.....	1,27,135

206. The difference in the totals given in the last column, of course, shows the real difference in the receipts of the two financial years.

207. The following statement shows the receipts and expenditure under main heads :—

Heads of Revenue and Charges.	1st April, 1892, to 30th June, 1893, or the period under report.	Financial Years.			
		1891-92.	1892-93.	Increase.	Decrease.
Revenue.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Timber and other produce removed from the forests by Government agency	9,47,767	7,42,283	8,37,582	95,299	...
II.—Timber and other produce removed from the forests by consumers or purchasers	4,14,101	3,87,984	3,46,130	...	41,854
III.—Drift and waif-wood and confiscated forest produce	6,968	8,169	6,717	...	1,452
IV.—Revenue from forests not managed by Government	839	279	824	545	...
V.—Miscellaneous	14,696	8,992	9,832	840	...
Grand Total, Revenue ...	13,84,371	11,47,707	12,01,085	96,684	43,306
Charges.					
A.—Conservancy and Works.					
I.—Timber and other produce removed from the forests by Government agency	3,08,322	3,14,107	2,65,614	...	48,493
II.—Timber and other produce removed from the forests by consumers or purchasers ...	10,290	7,971	8,574	603	...
III.—Drift and waif-wood and confiscated forest produce ...	63	99	47	...	52
IV.—Revenue from forests not managed by Government	...	...	...	...	...
V.—Rent of leased forests and payments to shareholders, in forests managed by Government ...	10,275	5,752	9,497	3,745	...
VI.—Live-stock, stores, tools and plant.	13,142	15,510	9,853	...	5,657
VII.—Communications and buildings ...	8,554	6,809	7,951	1,142	...
VIII.—Demarcation, improvement and extension of forests ...	1,00,305	81,583	77,705	...	3,878
IX.—Miscellaneous	9,915	5,584	9,583	3,999	...
Total A. ...	4,60,866	4,37,415	3,88,824	9,489	58,080
B.—Establishments.					
I.—Salaries	3,00,195	2,23,047	2,39,765	16,718	...
II.—Travelling allowances	44,057	34,021	34,816	795	...
III.—Contingencies	14,024	10,748	11,192	444	...
Total B. ...	3,58,276	2,67,816	2,85,773	17,957	...
Total Charges, A. and B. ...	8,19,142	7,05,231	6,74,597	27,446	58,080

208. The receipts show increases under the main heads I, IV and V, and decreases under II and III.

I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY.

209. The increase under this head is met with as follows :—Rs. 1,44,593 under "*a.* Timber," and Rs. 8,285 under "*d.* Sandalwood." While decreases amounting to Rs. 20,611 and Rs. 50,416 occur under "*b.* Firewood" and "*e.* Grass and other minor produce," respectively.

210. The increase in the revenue from *timber* is met with mostly in the Northern Division of Kánara (Rs. 59,369), and in Kolába (Rs. 92,464). In Northern Kánara, there was an increased sale of wood in the auctions at the Haliyál-Depôt, where 196,630 cubic-feet were sold during the year against 93,000 cubic-feet in the year before.* The rates obtained, however, showed no material change. In Kolába, a considerably-larger quantity of timber was exploited by departmental agency than that sold in the previous year, and higher prices were obtained. The revenues in Belgaum and Dhárwár also show increases of Rs. 1,278 and Rs. 4,987, respectively.

211. The decrease in revenue under "*b.* Firewood" occurs in the Northern Division of Kánara (Rs. 8,975), Belgaum (Rs. 9,201) and Dhárwár (Rs. 4,290) ; it is ascribed (*a*) to a smaller quantity of fuel having been supplied to the Railway-Company from Northern Kánara and Belgaum * and (*b*) to fewer stacks having been sold in Dhárwár, because of the large quantity thrown on the market from Inámdárs' forests. The receipts from *firewood* in the Central Division of Kánara show an increase of Rs. 1,704.

212. The increase under "*d. Sandalwood*" occurs in Dhárwár (Rs. 6,845) and in Southern Kánara (Rs. 1,644). In Dhárwár, a large number of trees was taken out from occupied lands and sold by Government, and in Southern Kánara higher prices were obtained for wood from Government-forests.

213. The myrobollam-crop of the year was very poor and consequently the receipts under "*e. Grass and other minor produce*" show a decrease of Rs. 35,478 in Belgaum, and Rs. 18,491 in Northern, and Rs. 13,148 in Central Kánara. The crop in Southern Kánara was equally bad, but the actuals of that Division were enhanced owing to a part of the revenue, properly belonging to 1891-92, having been credited in the accounts of the year under report.

II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OF PURCHASERS.

214. The actuals of the year under "*a. Timber*" show a decrease of Rs. 59,600.

In Kolába, where the decrease amounts to Rs. 66,354, most of the cuttings were carried on by departmental agency, and, consequently, due allowance being made for cost of departmental operations, the revenue decreased under this head and increased correspondingly under *I—a.* In the Southern Division of Kánara, there was a falling-off in the demand for wood for local consumption, and this caused a decrease of Rs. 3,652 in the revenue.

215. On the other hand, there was an increased demand for export-timber in the Kárwár-range of the Northern Division of Kánara, whose revenue shows an increase of Rs. 3,157. The receipts for timber in fuel-cuttings in Belgaum also increased. The increase in Belgáum, Dhárwár and Bijápur, aggregates Rs. 2,022. In Central Kánara, outstanding-balances of the previous year's revenue were credited in the accounts for the year under report; hence an increase of Rs. 3,157, there.

216. Under "*b. Firewood,*" there is an increase of Rs. 9,894 in Northern Kánara, and of Rs. 1,840 in Southern Kánara. This is attributable to increased demand, for export by sea, of firewood in the coast-districts. The figures for Belgaum and Kolába show a decrease of Rs. 1,387 and Rs. 4,683, respectively.

217. Under "*c. Bamboos*" and "*e. Other minor produce,*" decreases amounting to Rs. 2,165 and Rs. 1,429, respectively, are to be noted. There was a falling-off in the demand for export-bamboos in Haliyál† ; and certain kinds of minor produce were allowed free to the public under the new rules (see paragraph 171) ; hence the decrease shown above. An increase of Rs. 1,124 in the receipts from bamboos is to be noted in Belgaum.

218. An increase of Rs. 16,456 is met with in the revenue under "*d. Grazing*" for the reason explained in paragraph 166.

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* The increase in the fuel-supply, shown in paragraph 186 of this report, is due to the extra period from April- June, 1893 ; while, the figures of receipts, given in paragraph 209, are for the quantity furnished within the financial year, 1892-93.

† The increase in the number of bamboos, referred to in paragraph 180, was due to exploitations in April-June, 1893.

219. The increase under "III" occurs mostly in the Central Division of Kánara, and is owing to the receipts of 1891-92, having been swelled by the sale of an unusually-large quantity of confiscated wood (*vide* paragraph 171 of that year's report).

EXPENDITURE.

A.—Conservancy and Works.

220. The decrease under "I," *viz.* Rs. 48,493, is ascribed to the following reasons:—

"a. Timber."

221. In the Northern Division of Kánara (Rs. 33,544), no new contracts to bring in wood to the depôt were given during the year, as there was on hand a large residue of timber brought in during the previous year; in Central Kánara (Rs. 16,467) payment to a contractor was withheld, as his timber did not reach the sale-depôt in time.

222. In Kolába, there is an increase of Rs. 19,961, which is due to a corresponding increase in the receipts under *"I. a. Timber."*

b. Firewood.

c. Grass and other minor produce.

223. The decreases under these heads amount to Rs. 9,353, and Rs. 15,424, respectively and are due to decreases in the corresponding heads of receipts.

224. The increase under "V" is due to larger payments to Khots and *Rakhwáldárs* in Kolába; that under "VII" is due to construction of a depôt-house at Hubli, and under "IX" to charges connected with grain-compensation to certain forest subordinates.

B.—Establishment.

225. The increase of Rs. 16,718 under "I.—Salaries" is attributable to the reorganization-scheme of the superior staff, introduced in this Presidency from 1st April, 1892, under which 4 officers were promoted in the grades of Deputy Conservator and 2 in those of Assistant-Conservator. The pay of Extra-Assistant-Conservators was also increased, and two additional appointments of that class were allotted to this Circle.

226. The following shows the value calculated at seigniorage-rates of the forest produce granted free during the two years 1891-92 and 1892-93:—

Division.	1891-92 (FINANCIAL YEAR.)					1892-93 (FOREST YEAR).				
	Timber.	Bamboos of sorts.	Canes.	Firewood.	Value.	Timber.	Bamboos.	Canes.	Firewood.	Value.
	Cubic feet.	No.	Head-loads.	Cubic feet.	Rs.	Cubic feet.	No.		Cubic feet.	Rs.
Northern Division, Kánara	11,689	5,350	..	1,813	2,821	23,927	15,765	..	2,334	5,738
Central Division, Kánara	29,562	6,150	8	..	5,562	29,705	7,120	..	..	6,400
Southern Division, Kánara	16,238	3,000	11	..	3,771	22,057	..	..	..	4,916
Belgaum	763	..	..	..	184	3,252	4,366	..	792	899
Dhárwár	239	..	..	..	130	202	600	..	..	92
Bijápur	..	..	..	..	..	..	..	..	..	..
Kolába	16,660	..	..	..	1,334	17,190	..	..	..	1,119
Ratnágiri	...	..	..	..	..	100	..	..	..	32
Total ..	75,156	14,500	19	1,813	13,792	96,433	27,851	..	3,126	19,286

227. The value of the produce taken free without special permission, including grass, firewood, timber, honey, &c., is not included in the above figures.

CHAPTER V.

FOREST ADMINISTRATION.

228. During the year, the relations of Forest- to Revenue-Officers and Government underwent a radical change. The effect of the new rules under Government Resolutions No. 650 of 26th January, 1891, and No. 7107 of 6th September, 1892, is the transfer of the management of unorganized forests to the Collector. The Conservator is placed under the Commissioner, and his direct connection with Government is severed, except in regard to questions of account, establishment and the annual report.

238. From Karjat he proceeded on the 11th *viâ* Kámpóli to Shiróli, Pen (where he met the Divisional Officer) and Nágotna. On the 26th, he moved to Indápúr, and to Dásgáon on the 28th.

239. On the evening of the 1st December, he left for Mahád and proceeded thence to Poládpúr, Káshédi and Khed in Ratnágiri, where he met the Divisional Officer on the 4th. Camp was moved to Chiplún on the 7th, Aravli on the 12th, and to Sangameshvar on the 14th, and thence to Ratnágiri, *viâ* Wauri, on the 17th. From Ratnágiri Mr. Wroughton returned to Belgaum on January 3. On the 9th he left for Hubli, where he met the Divisional Officer.

240. On the 16th January he moved on to Tadas, and on the 17th to Mundgod in Kánara. Thence to Pálá, Ekambi and Sirsi.

241. On the 30th he left Sirsi, for Siddápur and Kodkani, returning to Sirsi on the 8th. The Divisional Officer met him there. From Sirsi he moved camp to Sonda on the 13th, and proceeded, *viâ* Bartanhalli and Manchikeri, to Yellápur.

242. On the 6th March, he moved on the Tátwhál, where he met the Working-Plans' Officers. Next day, he continued the march to Supa, *viâ* Kulgi and Poteli, where he was joined by the Divisional Officer. On the 24th he left for Jagalbet, Chándwádi, Tináí and Castle-rock, and on the 5th April returned to Belgaum.

243. On the 28th Mr. Wroughton handed over charge of his office to me, and left on furlough.

244. During May, I made a short trip to Nágargáli, returning to head-quarters on June 5.

ESTABLISHMENT.

245. The sanctioned reorganization of the superior staff was brought into force on 1st April, 1892, but the proposed reorganization of the subordinate staff was not carried out. The actual cost amounted to Rs. 1,22,519 and Rs. 1,75,759 on account of the superior and subordinate staff, respectively, against Rs. 1,05,402 and Rs. 1,51,000 of 1891-92.

246. Under the reorganization-scheme, two additional Extra-Assistant-Conservators were appointed to the Southern Circle. One of these was attached to the Conservator's Office, and the other to the Kolába-Division as Sub-Divisional Officer.

247. The Kolába and Ratnágiri-Districts were again separated, and each was put under a Divisional Officer. Mr. B. G. Deshpánde, Extra-Assistant-Conservator, was appointed to Ratnágiri, while Mr. T. R. D. Bell retained charge of Kolába.

248. The changes among the officers were :—

249. Mr. C. Greatheed, Divisional Officer, Kolába, handed over charge of his office to Mr. N. K. Thánedár on 1st April, 1892, and proceeded on furlough. On the 9th, Mr. Thánedár handed over charge to Mr. Bell, who handed over again to Mr. Thánedár on 29th May, 1892, and went on 3 months' privilege-leave. Mr. R. Ryan assumed charge on 2nd June from Mr. Thánedár, who, on the former's going on privilege leave, resumed it on the 15th and held it until Mr. Stewart's return from furlough on July 7. Mr. Ryan, on his transfer to Kolába, handed over charge of Bijápur to Mr. Hight, Divisional Forest Officer, Dhárwár, on the 30th May, 1892.

250. Mr. J. L. L. MacGregor, Conservator of Forests, proceeded on a year's furlough, giving over charge to Mr. R. C. Wroughton on the 22nd April, 1892.

251. Mr. B. J. Haselden, Divisional Officer, Central Division of Kánara, was on furlough from 8th September, 1892, to 12th June, 1893, during which period Mr. T. R. Bell held charge of the Division.

252. Mr. Hight, who was on privilege-leave until 27th April, resumed charge of the Dhárwár-Division from Mr. Ryan, and gave it over to Mr. W. R. Woodrow on 14th September, 1892, before proceeding on a year's furlough.

253. Mr. Ryan, on his return from privilege-leave, took charge of the Bijápur-Division on the 28th July from Mr. Hight, and continued in charge until 2nd March, 1893, when he was suspended, and ultimately dismissed. In his place Mr. Bell was appointed.

254. Mr. Dattatraya Manjunáth Bijoor, who was appointed sub. *pro-tem.* Extra-Assistant-Conservator, reported himself for duty on 1st June, 1892, and was appointed Personal Assistant to the Conservator of Forests, S. C.

255. Mr. G. K. Betham returned from leave on 27th October, 1892, and took charge of the Southern Division of Kánara from Mr. Woodrow.

256. Mr. A. C. Robinson, Extra-Assistant-Conservator, transferred from the Northern to the Southern Circle, reported himself for duty as Sub-Divisional Officer, Kolába, on the 20th January, 1893.

257. In the Working-Plans' Branch, the following officers held charge of Divisions:—

Party I.

Mr. T. R. Bell, 1st—5th April, 1892,
„ Haripad Mitra, 6th—11th April, 1892,
„ C. Hodgson, 12th April—11th November, 1892,
„ H. Murray, 12th November—12th December, 1892,
when Mr. H. Mainwaring, who had been newly posted to this Circle, took charge.

258. Mr. Hodgson held charge of the IInd Party during the whole of the year.

259. The conduct of the executive establishment is reported to have been, on the whole, satisfactory.

260. Two cases of misconduct, involving the dismissal of foresters, occurred.

261. The conduct of the subordinate establishment was not so good, and 41 guards had to be dismissed.

262. The services of the following officers are mentioned by the Divisional Officers as specially deserving of notice:—

Mr. Sheshu Manju, Extra-Assistant-Conservator.
„ A. C. Robinson do. do.
„ Jamaitkhán Samsherkhán, Range Forest Officer, Nágotna.
„ Ganpat Jaywant Rege, Forest Ranger, Khánápur.
„ Hassan valad Mohidin, Range Forest Officer, Chikodi.
„ Wáman Bálkrishna do. do. Parasgad.
„ Ganpat Rámji Máne, Forest Ranger, Sirsi.
„ Subráo Shivrám, Forester, Sirsi.
„ Shankar Bápu Sáwant, Range Forest Officer, Devgad.
„ Hari Vishnu Kháre, do. do. Sangameshvar.

263. I resumed charge of the Southern Circle this year on return from furlough, on 28th April, 1893. Mr. Wroughton, my *locum tenens*, told me, before leaving, that he considered that all the officers serving under him (with the exception of Mr. Ryan, whose services have since been dispensed with by Government) had worked well.

J. L. L. MacGREGOR,
Conservator of Forests, Southern Circle.

Belgaum, 6th October 1893.

LIST OF STATEMENTS ACCOMPANYING THE FOREST ADMINISTRATION REPORT OF THE CONSERVATOR OF FORESTS, SOUTHERN CIRCLE, FOR 1892-93.

Form No. 46 ...	Area of Reserved Forests, 1892-93.
„ „ 46A ...	Area of Protected Forests, 1892-93.
„ „ 47 ...	Progress made in, and expenditure incurred on, Forest Settlements.
„ „ 48 ...	Demarcation and maintenance of boundaries.
„ „ 49 ...	Forest area surveyed and under survey.
„ „ 50 ...	Progress made in Working Plans.
„ „ 51 ...	Communications and Buildings.
„ „ 52 ...	Prosecutions for breaches of Forest Rules during 1892-93.
„ „ 52A ...	Statement showing the number of cases of misappropriation of minor produce of the several Divisions of the Southern Circle for the year 1892-93.
„ „ 52B ...	Statement showing the number of cases dealt with under Section 67 of the Forest Act.
„ „ 52C ...	Statement showing the number of cases in which fines amounting to one rupee, two rupees and so on, up to the maximum, were inflicted during 1892-93.
„ „ 53 ...	Area of Forest tracts protected from fire during 1892-93.
„ „ 54 ...	Area open and closed to grazing during 1892-93.
„ „ 55 ...	Return of grazing in the State Forests during 1892-93.
„ „ 56 ...	Area of Plantations, 1892-93.
„ „ 57 ...	Outturn of Timber and Fuel, 1892-93.
„ „ 58 ...	Outturn of Minor Forest Produce, 1892-93.
„ „ 59 ...	Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1892-93.
„ „ 60 ...	Abstract showing the value of Timber and other Produce at Sale Depôts for the year 1892-93.
„ „ 60A ...	Abstract showing the value of Live and Dead Stock for the year 1892-93.
„ „ 61 ...	Summary of Revenue and Expenditure of the different Divisions during the year 1892-93.
„ „ 62 ...	Account current for the year 1892-93.
„ „ 63 ...	Revenue received and outstandings on account of Revenue during 1892-93.
„ „ 64 ...	Outstandings and Liabilities on account of Contractors and Disbursers for 1892-93.
„ „ 65 ...	Financial results of the year 1892-93.

J. L. L. MacGREGOR,
Conservator of Forests, Southern Circle.

Belgaum, 25th September 1893.

FORM No. 46.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Area of Reserved Forests, 1892-93.

Division.	Range.	Civil District or Territory.	Name of Forest.	AREA ON 1ST APRIL 1892.		ADDED DURING THE YEAR.	EXCLUDED OR TRANSFERRED TO OTHER HEADS.	AREA ON 30th JUNE 1893.		Number and date of Notification of addition or transfer.	REMARKS.
				Acres.	Equivalent in Square Miles.	Acres.	Acres.	Acres.	Equivalent in Square Miles.		
Northern Division of Kánara.	Haliyál and Kárwár.	Kánara ...	Haliyál and Kárwár ...	298,425	466	...	...	298,425	466		
Central Division of Kánara.	Mundgod, Ankola and Kumta.	Do. ...	Mundgod, Ankola and Kumta.	117,945	184	*504	†128	118,321	185	* No. 8542 of 31st October 1892.	
Southern Division of Kánara.	Sirsi and Honávar	Do. ...	Sirsi and Honávar ...	66,269	104	...	...	66,269	104	† No 9747 of 13th December 1892.	
Belgaum ...	Khánápur, Gokák, Belgaum, Sampgaon, Chikodi and Athni.	Belgaum ...	Khánápur, Gokák, Belgaum, Sampgaon, Chikodi and Athni.	316,522	495	...	...	316,522	495		
Dhárwár ...	Dhárwár, Kalghatgi, Hángal, Bankápur, Kod, Gadag, Ron, Nargund, Hubli and Ránebennur	Dhárwár ...	Dhárwár, Kalghatgi, Hángal, Bankápur, Kod, Gadag, Ron, Nargund, Hubli and Ránebennur.	109,850	172	...	...	109,850	172		
Bijápur ...	Bádámi and Bágalkot.	Bijápur ...	Bádámi, Hungund, Bijápur, Bágevádi, Muddebihál and Indi.	99,275	155	...	...	99,275	155		
Kolába ...	Alíbág, Panvel, Pen, Roha, Mahád, Mángaon, Karjat, Khálápur and Nágothna.	Kolába ...	Alíbág, Panvel, Pen, Roha, Nágothna, Mahád, Mángaon, Karjat and Khálápur.	244,126	381	...	...	244,126	381		
Ratnágiri ...	Dápoli, Khed, Sangameshwar, Devgad and Málvan.	Ratnágiri ...	Dápoli, Khed, Rájápur, Chiplún, Sangameshwar, Ratnágiri, Devgad and Málvan.	12,880	20	...	...	12,880	20		
			Total ...	1,265,292	1,977	504	128	1,265,668	1,978		

Belgaum, 25th September 1893.

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

FORM No. 46 A.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Area of Protected Forests, 1892-93.

Division.	Range.	Civil District or Territory.	Name of Forest.	Area on 1st April 1892.		Added during the year.	Excluded or Transferred to other heads.	Area on 30th June 1893.		Number and date of Notification of addition or transfer.	Remarks.
				Acres.	Equivalent in Square Miles.	Acres.	Acres.	Acres.	Equivalent in Square Miles.		
Northern Division of Kánara.	Supa ...	Kánara ...	Supa	462,476	723	...	...	462,476	723	* No. 8542A of 31st October 1892.	
Central Division of Kánara.	Mundgod, Kumta, Yellápur and Ankola.	Do. ...	Mundgod, Kumta, Yellápur and Ankola.	567,472	887	*973	†407	568,038	888	† Nos. 4022, 8542 and 3299, dated respectively, 9th May 1892, 31st October 1892 and 8th May 1893.	
Southern Division of Kánara.	Siddápur, Honávar, Sirsi and Bhatkal.	Do. ...	Siddápur, Honávar, Sirsi and Bhatkal.	757,929	1,184	...	‡14	757,915	1,184	‡ No. 3398, dated 13th April 1892.	
Belgaum ...	Belgaum, Chikodi, Gokák and Parasgad.	Belgaum ...	Belgaum, Chikodi, Gokák and Parasgad.	126,012	197	...	...	126,012	197	.....	
Dhárwár ...	Dhárwár, Kalghatgi, Bankápur, Kod, Hángal, Gadag, Ránebennur-Karajgi.	Dhárwár ...	Dhárwár, Kalghatgi, Bankápur, Kod, Hángál, Gadag, Ránebennur and Karajgi.	166,658	260	...	...	166,658	260	.....	
Bijápur ...	Bágalkot and Bádámi.	Bijápur ...	Bágalkot, Hungund, Bijápur, Bágevádi and Indi.	57,369	90	...	...	57,369	90	.....	
Kolába ...	Alíbág, Panvel, Pen, Roha, Mahád, Mángaon, Karjat, Khálápur and Nágothna.	Kolába ...	Alíbág, Panvel, Pen, Roha, Mahád, Mángaon, Karjat, Khálápur and Nágothna.	40,902	64	6	...	40,908	64	No. 4539 of 30th May 1892.	
			Total ...	2,178,818	3,405	979	421	2,179,376	3,406	.....	

Belgaum, 25th September 1893.

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

FORM No. 47.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Statement showing the Progress made in, and the Expenditure incurred on, Forest Settlements during 1892-93.

Name of Forest Division.	Name of Civil District or Territory.	Area already settled at commencement of the year.	Areas finally settled during the year.						Areas undergoing Settlement.						Remarks.
			Number and date of Government order according final sanction to the settlement.	Name of Forest settled.	Area, in square miles.	Expenditure incurred during the year on areas finally settled.		Entire cost per square mile of areas finally settled during the year.	At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on areas undergoing Settlement.		
						In Forest accounts.	In other accounts.		Name of tract.	Area in square miles.	Name of tract.	Area in square miles.	In Forest accounts.	In other accounts.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		Sq. Ms.		*Reserved.*		Rs.	Rs.	Rs.					Rs.	Rs.	
Northern Division, Kánara ...	Kánara ...	252	...	...	...	...	...	...	Kárwár	191	Kárwár	24	182	919	
Central do. ...		185	...	...	...	...	...	...	.....	...	.....	...	...	...	
Southern do. ...		104	...	...	..	...	...	...	... .	...	.....	.	...	...	
Belgaum Division	Belgaum ..	495	...	...	...	...	...	...	.. ...	...	.....	...	...	...	
Dharwár do	Dhárwár ...	172	...	...	...	...	..	...	.....	...	.....	...	...	...	
Bijápur do.	Bijápur ...	...	...	...	...	...	...	...	Bádámi, Hungund, Bágalkot, &c., forests.	155	.....	...	...	...	
Kolába do.	Kolába ...	370	...	...	..	...	...	...	Madrai villages in Nágothna.	11	.....	...	...	...	
Ratnágiri do.	Ratnágiri ...	20	...	...	...	...	...	...	.....	...	.....	...	...	...	
	Total ...	1,598	...	...	...	...	...	...	.....	357	.....	24	182	919	
				Protected.											
Northern Division, Kánara ...	Kánara ...	...	...	...	...	...	...	...	.....	...	.....	...	...	...	
Central do. ...	Do. ...	237	...	...	...	...	...	...	Yellápur... ...	352	.....	...	...	...	
									Ankola	62	.....	...	...	...	
									Kumta	140	.....	..	...	...	
Southern do. ...	Do. ...	80	...	...	...	...	...	...	.....	...	Sirsi, 168 villages .	431	3,319	11,406	
Belgaum Division	Belgaum ...	...	...	...	...	...	...	..	.....	*197	.....	...	...	..	* Government orders on the settlement of this area were received after the year had closed.
Dhárwár do.	Dhárwár ...	...	...	..	...	...	...	...	.....	260	Dhárwár, Gadag, Karajgi and Bankápur.	111	3,633	16,125	
Bijápur do.	Bijápur ...	...	...	...	...	...	...	...	.....	90	.....	...	...	...	
Kolába do.	Kolába ...	64	...	...	...	...	...	...	... ..	...	.....	...	...	...	
Ratnágiri do.	Ratnágiri ...	...	...	...	...	...	...	...	... ..	...	.....	...	...	...	
	Total ...	381	...	...	...	...	..	...	... ..	1,101	.. ...	542	6,952	27,531	
	Grand Total ...	1,979	...	...	...	...	...	...	.....	1,458	.....	566	7,134	*28,450	

Belgaum, 25th September 1893.

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

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FORM No. 48.

Forest Department, Bombay, Southern Circle.

Record of Demarcation and Maintenance of Boundaries, 1892-93.

Division.	Length of boundaries artificially demarcated during the year.	Length of previously existing boundaries repaired.	Length of previously existing boundaries not repaired.	Total length of artificially marked boundaries at the close of the year.	Length of boundaries not demarcated at the close of the year.	Length of natural boundaries not requiring artificial marks.	Total length of boundaries at the close of the year.	Expenditure on demarcation during the year.		Remarks.
								On new work.	On repairs.	
1	2	3	4	5	6	7	8	9	10	11
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs.	Rs.	
Northern Division, Kánara ...	...	...	...	...	...	...	...	...	...	
Central do. do. ...	22	55	25	102	9	...	111	986	375	
Southern do. do. ...	...	...	...	...	...	...	...	...	...	The Divisional Officer reports that no data are available.
Belgaum Division	...	...	...	...	...	...	...	...	...	
Dhárwár do.	...	...	3,355	3,355	...	30	3,385	...	...	
Bijápur do.	...	...	190	190	...	...	190	...	...	
Kolabá do.	...	...	...	...	...	...	...	...	...	The Divisional Officer reports that no data can be furnished.
Ratnágiri do.	...	...	...	...	...	...	...	...	...	
Total ...	22	55	3,570	3,647	9	30	3,686	986	375	

J. L. L. MacGREGOR,
Conservator of Forests, Southern Circle.

Belgaum, 25th September 1893.

FORM No. 49.

FOREST DEPARTMENT, 17 PARTY (BOMBAY FORESTS).

Statement of Forest Areas surveyed and under Survey during the year 1892-93.

In the Southern Circle.

Division.	Areas surveyed and under survey during the year.																								Areas remaining to be taken under Survey.	Total forest area at end of the year as per Form No. 46.	COST.			Remarks.
	Special surveys—Maps on 4" scale or over, by Survey of India Department or Forest Survey Branch.								*Ordinary, included in District Surveys.*								*Chain and compass or other surveys by local officers.*													
	WITH INTERIOR DETAILS.					BOUNDARY SURVEYS.			WITH INTERIOR DETAILS.					BOUNDARY SURVEYS.			WITH INTERIOR DETAILS.					BOUNDARY SURVEYS.									
	With Details of growing Stock.		Without Details of growing Stock.		Total Cost.	Previous.	Of the year.	Total cost.	With Details of growing Stock.		Without Details of growing Stock.		Total Cost.	Previous.	Of the year.	Total Cost.	4-Inch or over.		Under 4-Inch.		Total Cost.	Previous.	Of the year.	Total Cost.			Previous.	Of the year.	Entire cost of all Surveys to end of the year.	
	Previous.	Of the year.	Previous.	Of the year.					Previous.	Of the year.	Previous.	Of the year.					Previous.	Of the year.	Previous.	Of the year.		Previous.	Of the year.							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
				Sq. Ms.	Rs. a. p.																									
Kolaba 8"—																														
Detail	...	...	...	16	3,355 2 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	
North Kanara 4"—																														
Triangulation ..	...	...	...	600	7,057 2 7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	From 1st October 1892 to 30th September 1893.
Traversing ...	...	...	...	300	6,589 9 8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Detail	...	...	...	220	1,773 13 4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	
Total ...	...	...	...	...	34,732 12 3	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	

H. HUTCHINSON, Colonel, S. C.,
Superintendent, Bombay Forest Surveys.

Poona, 10th October 1893.

The Superintendent, Bombay Forest Surveys, states that the areas previously surveyed have not been recorded by Circles or Districts, that no record of the same has been kept, except on the maps themselves, and that, therefore, the figures to be entered in the several columns above cannot be given. The areas already surveyed and those remaining to be surveyed are, however, given in paragraph 47 of the report.

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle

FORM No. 50.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Progress made in Working-Plans, 1892-93.

Division.	AREAS FOR WHICH WORKING-PLANS HAVE BEEN COMPLETED.		AREAS FOR WHICH WORKING-PLANS ARE BEING COMPILED.		Areas for which Working-Plans have still to be taken in hand.	Total Forest area, as in Form No. 46.	Entire cost per square mile, of Working-Plans completed.	REMARKS.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.				
1	2	3	4	5	6	7	8	9
	Sq. miles.			Sq. miles.	Sq. miles.	Sq. miles.	Rs.	
Northern Division, Kánara	122	.....	.....	83	984	1,189	513	*i. e.* at 12 annas and 10 pies per acre.
Central do. do.	.....	.....	.....	.....	.....	.....	.....	
Southern do. do.	.....	.....	.....	.....	.....	.....	.....	
Belgaum do.	.....	.....	.....	.....	.....	.....	.....	
Dhárwár do.	.....	.....	.....	.....	.....	.....	.....	
Bijápur do.	.....	.....	.....	.....	.....	.....	.....	
Kolába do.	.....	.....	.....	.....	.....	.....	.....	
Ratnágiri do.	.....	.....	.....	.....	.....	.....	.....	
Total ...	122	.. ...	.. ...	83	984	1,189	513	

Belgaum, 25th September 1893.

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

FORM No. 51.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Communications and Buildings for 1892-93.

Division.	New Works undertaken during the year.					Repairs executed during the year.					Remarks.
	Buildings.		Roads and Paths.			Buildings.		Roads and Paths.			
	Description of Building.	Expenditure incurred.	Road or Path, and object of the same.	Length of road or path.	Expenditure incurred.	Total Expenditure on new work.	Nature of Repairs.	Expenditure incurred.	Nature of Repairs.	Length repaired.	Expenditure incurred.	Total Expenditure on repairs.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Rs.			Rs.	Rs.		Rs.			Rs.	Rs.	
Northern Division, Kánara.	Well at Sambráni	300	Path from the main road to the Haliyál new depôt ground.	500 feet ...	261		Monsoon repairs to the Haliyál Range Office.	34	Contribution for repairs to the Local Fund road from Bhagwati to Potell done by the Revenue Department				
	Do. at the Haliyál Depôt ...	300	Jungle cart-track from Badgund to Avedi for the conveyance of wood from forests to depôts.	4 miles ...	75		Do. do. to the Divisional Office Building at Haliyál.	17			200		
							Do. do. to the Kodibág Depôt house.	65	Repairs to forest cart-tracks and pools in the Division.	23 miles ...	49		
							Do. do. to 9 forest nákás and other temporary sheds; for hardas, &c.	191					
	Total ...	600			336	936		307			249	556	
Central Division, Kánara.	Watch house at Dhehálli ...	300	Extending the road from Kanigeri to Udamaki.	1·06 miles.	200		Monsoon repairs to buildings in the Yellápur Range.	1,146	Muruming roads in the Yellápur Range.	8·51 miles .	308		
	Do. do. at Sántgal ..	300					Do, do. in the Mundgod Range .	243	Do. do. in the Mundgod Range.	2·50 miles .	54		
	Well at Kolikeri	348					Do. do. Ankola do. ...	174					
	Do. at Wadgatti	202					Do. do. Kumta do. ...	85					
	Total ...	1,150			200	1,350		1,648			362	2,010	
Southern Division, Kánara.	Well at Bilki	250	.....	...	...	...	Monsoon repairs to several nákás, &c., in the Division.	317	Muruming, &c., road from Baswankop to Chitgeri.	5 miles ...	90		
	Do. at Hebankeri	90					Re-roofing depôt house at Sirsi	100					
	Total ...	340				340		417			90	507	
Belgaum ...	Inspecting shed at Londa ...	18	.....	...	...	...	Monsoon repairs, &c., to 14 náka-houses.	122	Repairing the cart-track leading to the Nandi-cutting.	300 feet ...	15		
	Do. at Kirpoli ...	48					Do. do. to the Naudgad temporary náka-house.	4					
							Repairs to the rest-house at Nágargali...	357	Metalling, ditching and rolling the Halsi-Nágargali road.	2·56 miles .	1,056		
	Total ...	66			...	66		483			1,071	1,554	
Dhárwár ...	Depôt house at Hubli	999	.....	...	...		Re-roofing Artal náka and ordinary repairs such as turning tiles, white-washing, &c., to forest buildings.	142					
	Total ...	999			...	999		142			...	142	
Bijápur	.....	...	.....	...	..	...	Petty repairs such as white-washing, repairing gate-door, &c.	15					
	Total ...	...			...	...		15			...	15	
Kolába	.....	...	.....	...	...	...	Repairs to the upper portions of roofs of 2 huts in the Alibág Range.	5	.....	...	...		
							Thatching the huts...	10					
							Do. 4 Choki-huts in the Karjat Range.	32					
							Do. 6 do. in the Khálápur Range.	49					
	Total ...	...			...	...		96			...	96	
Ratnágiri ...	.....	...	.....	...	...	...	Current monsoon repairs to the guard's hut in the Kawp Plantation.	5	Monsoon repairs to the forest road between Camp Dápoli and Band Reserves.	6 miles ...	45		
	Total ..	...			...	...		5			45	50	
	Grand Total ...	3,155			536	3,691		3,113			1,817	4,930	

Belgaum, 25th September 1893.

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

ANNUAL FORM No. 52.

Forest Department, Bombay, Southern Circle.

Register of Breaches of Forest Rules during 1892-93.

Forest Division and Civil District.		Cases pending from 1891-92.	New Cases of the Year.					Total cases.	Disposed of during the Year.						Cases pending at close of year.
			Injury to Forest by fire.	Unauthorized felling or appropriation of wood and minor Forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Northern Kánara.	Division, A	...	5	109	...	5	119	119	68	74	48	50	116	124	3
	Division, B	...	1	14	...	...	15	15	13	16	2	6	15	22	...
	Division, C	...	6	...	...	...	6	6	...	...	...	...	...	...	...
	Total	...	12	123	...	5	140	140	81	90	50	56	131	146	3
Central Kánara.	Division, A	...	3	15	...	...	18	18	10	15	8	9	18	24	...
	Division, B	...	1	21	...	...	22	22	20	23	2	2	22	25	...
	Division, C	...	...	6	...	...	6	6	...	...	...	...	...	...	...
	Total	...	4	42	...	...	46	46	30	38	10	11	40	49	...
Southern Kánara.	Division, A	...	...	100	...	...	100	*100	83	83	7	7	90	90	...
	Division, B	...	...	4	...	...	4	4	4	4	...	...	4	4	...
	Division, C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total	...	...	104	...	...	104	104	87	87	7	7	94	94	...
Belgaum	A	...	1	5	38	90	8	141	142	126	161	14	41	140	202	2
	B	...	...	5	439	7	24	475	475	475	475	...	...	475	475	...
	C	...	...	89	34	...	...	123	123	...	...	...	...	...	...	...
	Total	...	1	99	511	97	32	739	740	601	636	14	41	615	677	2

* Of these, 10 cases were withdrawn, the accused having died.
A means cases taken into Court.
B means cases disposed of under Section 67 of Indian Forest Act, 1878.
C means undetected cases.

ANNUAL FORM No. 52—*continued.*

Forest Division and Civil District.		Cases pending from 1891-92.	New Cases of the Year.					Total cases.	Disposed of during the Year.						Cases pending at close of year.
			Injury to Forest by fire.	Unauthorized felling or appropriation of wood and minor Forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Dhárwár ...	A ...	...	2	24	3	...	29	29	18	32	9	43	27	75	2
	B ...	...	...	35	...	2	37	37	37	107	...	...	37	107	...
	C ...	...	...	19	...	...	19	19	...	...	...	...	...	...	...
	Total ...	...	2	78	3	2	85	85	55	139	9	43	64	182	2
Bijápur ...	A ...	1	...	11	1	2	14	15	14	35	1	15	15	50	...
	B ...	...	...	81	2	...	83	83	83	285	...	...	83	285	...
	C ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	1	...	92	3	2	97	98	97	320	1	15	98	335	...
Kolába ...	A ...	5	...	121	...	12	133	138	102	495	32	81	134	576	4
	B ...	...	2	143	...	9	154	154	154	681	...	...	154	681	...
	C ...	...	...	320	...	...	320	320	...	...	...	...	...	...	...
	Total ...	5	2	584	...	21	607	612	256	1,176	32	81	288	1,257	4
Ratnágiri ...	A ...	1	...	32	...	3	35	36	17	22	18	24	35	46	*1
	B ...	...	3	117	1	5	126	126	123	1,342	3	125	126	1,467	...
	C ...	...	1	9	...	...	10	10	...	...	...	...	...	...	...
	Total ...	1	4	158	1	8	171	172	140	1,364	21	149	161	1,513	1
Grand Total ...	A ...	*8	15	450	94	30	589	597	438	917	137	270	575	1,187	12
	B ...	...	12	854	10	40	916	916	909	2,933	7	133	916	3,066	...
	C ...	...	96	388	...	...	484	484	...	...	...	...	...	...	...

A means cases taken into Court.

B means cases disposed of under Section 67 of Indian Forest Act, 1878.
*Error in the Divisional Return for 1891-92 now rectified.

C means undetected cases.

Belgaum, 25th September 1893.

J. L. L. MacGREGOR,
Conservator of Forests, Southern Circle.

FORM No. 52 A.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Statement showing the Number of Cases of Misappropriation of Minor Produce of the several Districts of the Southern Circle for the years 1891-92 and 1892-93.

Division.	NUMBER OF CASES OF MISAPPROPRIATION OF																								Total Cases of Misappropriation.		Remarks.
	Timber.		Firewood.		Minor Produce.																						
					Leaves.		Stones, earth and minerals.		Cinnamon, matti, kaki and bábul barks.		Tarwad bark.		Canes and Karvi.		Harda.		Honey.		Bábul pods.		Cinnamon.		Thorns.		Total.				
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	
Northern Division, Kánara .	23	19	..	100	..	4	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	3	4	26	123	
Central Division, Kánara .. .	29	17	..	3	47	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	47	16	76	36	
Southern Division, Kánara ..	34	7	5	..	*12	97	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	*12	97	*51	104	
Belgaum	33	111	148	332	3	2	5	15	..	1	..	1	..	1	8	4	..	..	..	..	..	..	..	10	16	34	197	477	
Dhárwár	47	34	19	21	1	..	3	2	..	..	..	2	..	..	..	..	..	..	1	..	..	..	..	..	5	4	71	59	
Bijápur	..	2	48	79	2	1	2	7	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	5	11	53	92	
Kolába	272	153	..	107	..	..	2	3	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	.	3	4	275	264	
Ratnágiri	118	86	..	6	91	57	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	91	57	209	149	
Total ..	556	429	220	648	156	177	12	27	1	1	..	3	3	1	9	5	..	..	1	..	..	..	..	13	*182	227	*958	1,304	

* Error in the Divisional Return for 1891-92, now rectified.

Belgaum, 25th September 1893.

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

FORM No. 52 B.

Statement showing the Number of Cases dealt with under Section 67 of the Forest Act and the Amounts paid as compensation in 1892-93 as compared with the preceding year.

Divisions.	1891-92.						1892-93.					
	Cases compounded.					Amount realized.	Cases compounded.					Amount realized.
	For misappropriation of			For	Total.		For misappropriation of			For	Total.	
	(a) Timber.	(b) Firewood.	(c) Minor Forest Produce.	(d) Other offences.			(a) Timber.	(b) Firewood.	(c) Minor Forest Produce.	(d) Other offences.		
Northern Division of Kánara.	8	...	...	...	8	49	11	2	...	...	13	89
Central Division of Kánara.	43	...	16	1	60	197	20	...	...	...	20	103
Southern Division of Kánara.	31	5	9	...	45	91	4	...	...	...	4	53
Belgaum	45	131	6	28	210	351	95	317	27	36	475	580
Dhárwár	30	19	...	16	65	180	16	12	2	7	37	83
Bijápur	1	37	2	9	49	215	2	70	9	2	83	188
Kolába	78	71	2	16	167	546	88	57	...	9	154	871
Ratnágiri	89	14	86	10	199	587	57	6	55	5	123	612
Total ...	325	277	121	80	803	2,216	293	464	93	59	909	2,579

Belgaum, 25th September 1893.

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

FORM No. 52 C.

Forest Department, Bombay, Southern Circle.

Statement showing the Number of Cases in which Fines amounting to one rupee, two rupees and so on, up to the maximum, were respectively inflicted during 1892-93.

Division.	Number of Fines inflicted.																																	Total.	
	Rupee 1 and under.	Rupees 2 and under.	Rupees 3 and under.	Rupees 4 and under.	Rupees 5 and under.	Rupees 6 and under.	Rupees 7 and under.	Rupees 8 and under.	Rupees 9 and under.	Rupees 10 and under.	Rupees 11 and under.	Rupees 12 and under.	Rupees 13 and under.	Rupees 14 and under.	Rupees 15 and under.	Rupees 17 and under.	Rupees 18 and under.	Rupees 19 and under.	Rupees 20 and under.	Rupees 22 and under.	Rupees 25 and under.	Rupees 28 and under.	Rupees 29 and under.	Rupees 30 and under.	Rupees 31 and under.	Rupees 35 and under.	Rupees 38 and under.	Rupees 40 and under.	Rupees 50 and under.	Rupees 52 and under.	Rupees 54 and under.	Rupees 60 and under.	Rupees 68 and under.	Rupees 103 and under.	Rupees 150 and under.	Number.	Amount.
Northern Division, Kánara .	3	3	1	...	...	...	2	2	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	13	89
Central Division, Kánara ...	6	4	1	1	...	1	...	1	...	...	...	1	...	1	...	1	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	20	103
Southern Division, Kánara .	...	...	...	1	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	53
Belgaum	417	27	4	2	12	2	...	1	...	4	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	1	...	...	1	...	...	1	...	1	...	475	580
Dhárwár	20	10	3	2	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	37	83
Bijápur	45	16	6	4	3	3	...	2	...	...	...	2	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	83	188
Kolába	56	31	12	12	4	8	7	1	...	2	2	3	2	2	1	...	1	1	...	...	...	2	1	...	1	...	...	2	...	1	1	...	...	...	1	154	871
Ratnágiri	59	18	12	8	7	1	1	2	1	2	1	1	1	...	1	...	2	...	...	2	...	...	...	...	...	...	...	...	1	1	1	...	1	...	...	123	612
Total ...	606	109	39	30	26	15	11	9	1	8	3	7	4	5	3	1	4	1	3	4	1	2	1	1	1	1	1	2	2	2	2	1	1	1	1	909	2,579

Belgaum, 25th September 1893.

J. L. L. MacGREGOR,
Conservator of Forests, Southern Circle.

FORM No. 53.

Forest Department, Bombay, Southern Circle.

Area of Forest Tracts protected from Fire during 1892-93.

Division.	Forest Tracts.	Year in which protection commenced.	Area protected during 1891-92.	Area attempted to be protected.	Failures.	Area actually protected.	Cost.	Remarks.
			Acres.	Acres.	Acres.	Acres.	Rs.	
Northern Division, Kánara.	Haliyál	1887-88 ...	157,275	190,975	244	190,731	6,259	
	Kárwár	,,	14,135	83,366	153	83,213	1,385	
	Supa	1888-89 ...	196,344	52,017	141	51,876	4,900	
	Total ...	...	367,754	326,358	538	325,820	12,544	
Central Division, Kánara.	Yelláp ur	1888-89 ...	61,297	61,822	1,856	59,966	3,386	
	Mundgod	,,	33,971	36,890	340	36,550	3,094	
	Ankola	,,	4,853	19,236	171	19,065	571	
	Total ...	...	100,121	117,948	2,367	115,581	7,051	
Southern Division, Kánara.	Sirsi	1887-88 ...	23,623	46,915	1,143	45,772	827	
Belgaum ...	Chikodi	1883-84 ...	800	954	.....	954	18	
	Khánápur	1884-85 ...	71,176	88,605	1,926	86,679	1,377	
	Belgaum	1886-87 ...	22,857	58,780	194	58,586	287	
	Gokák-Sampgaon ...	1887-88 ...	14,465	15,552	90	15,462	141	
	Total ...	...	109,298	163,891	2,210	161,681	1,823	
Dhárwár ...	Dhárwár	1888-89 ...	2,599	4,698	2,460	2,238	178	
	Kalghatgi	,,	5,790	7,112	50	7,062	138	
	Bankápur	,,	5,187	5,276	630	4,646	102	
	Hángal	,,	4,446	4,582	.....	4,582	131	
	Kod	,,	9,797	8,040	25	8,015	70	
	Gadag	,,	6,480	6,410	177	6,233	32	
	Total ...	...	34,299	36,118	3,342	32,776	651	
Bijápur	Bádámi	1889-90 ...	.....	15,607	.....	15,607	233	
	Bágalkot	,,	.....	13,393	51	13,342	267	
	Total ...	...	.....	29,000	51	28,949	500	
Kolába	Alíbág	1892-93 ...	.....	19,983	613	19,370	27	
	Nágothna	,,	.....	10,622	337	10,285	...	
	Mángaon	,,	.....	2,270	335	1,935	17	
	Mahád	,,	.....	3,540	13	3,527	...	
	Panvel	,,	.....	8,941	476	8,465	1	
	Karjat	,,	.....	4,254	161	4,093	4	
	Khálápur	1887-88 ...	18,633	9,549	708	8,841	131	
	Total ...	...	18,633	59,159	2,643	56,516	180	
Ratnágiri ...	Dápoli	1889-90 .	.....	2,516	6	2,510	9	
	Khed	1892-93 ...	.....	5,222	.....	5,222	...	
	Chiplún	,,	.....	799	.....	799	...	
	Sangameshvar	,,	.....	3,108	.....	3,108	...	
	Ratnágiri	,,	.....	270	.....	270	...	
	Rájápur	,,	.....	320	.....	320	...	
	Devgad	,,	.....	11	.....	11	...	
	Málvan	1889-90 ...	.....	625	.....	625	...	
	Vengurla	1892-93 ...	.....	10	.....	10	...	
	Total ...	...	.....	12,881	6	12,875	9	
	Grand Total ...	...	653,728	792,270	12,300	779,970	23,585	

Belgaum, 25th September 1893.

J. L. L. MacGREGOR,
Conservator of Forests, Southern Circle.

FORM No. 54.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Area closed and open to grazing during 1892-93.

Division.	Area in Square Miles.					Total area.	Remarks.
	Closed to all animals.		Closed to browsers (camels, goats or sheep).		Open to all animals.		
	Whole year.	Part of year.	Whole year.	Part of year.	Whole year.		
1	2	3	4	5	6	7	8
Northern Division, Kánara ..	190	...	18	...	980	1,188	
Central Division, Kánara	185	...	...	...	888	1,073	
Southern Division, Kánara... ...	104	...	...	...	1,184	1,288	
Belgaum	30	...	544	...	118	692	
Dhárwár	100	...	...	...	332	432	
Bijápur	45	...	200	...	...	245	
Kolába	30	...	...	...	415	445	
Ratnágiri	16	...	...	...	4	20	
Total ...	700	...	762	...	3,821	5,383	

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

Belgaum, 25th September 1893.

FORM No. 55.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Return of Grazing in the State Forests during 1892-9.

Division.	Grazing on Payment—Number of Animals.													Grazing free—Number of Animals.											Grand total of value at full rates.
	At full rates.						At privileged rates.							By right under Settlement.						During pleasure of Government, or otherwise than under Settlement.						Total value of Fees at full rates.	
	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Fees received.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Fees received. Actual.	Fees received. Value at full rates.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Value of Fees at full rates.	Buffaloes.	Cows and Bullocks.	Goats and Sheep.	Camels.	Other animals.	Value of Fees at full rates.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
						Rs.						Rs.	Rs.						Rs.						Rs.	Rs.	Rs.
Northern Division, Kánara ...	169	1,112	...	...	...	1,281	28,013	102,010	2,150	...	4	16,388	1,30,161	...	...	...	...	...	...	...	...	...	...	...	...	...	1,31,442
Central Division, Kánara ...	313	422	...	...	...	735	25,185	112,926	1,677	...	...	17,369	1,38,321	...	...	...	...	...	...	...	...	...	...	...	...	...	1,39,056
Southern Division, Kánara ...	113	...	...	...	...	113	35,673	161,476	4,676	...	...	25,190	1,97,733	...	...	...	...	...	...	...	...	...	...	...	...	...	1,97,846
Belgaum	2,354	8,477	35,405	...	111	11,825	7,693	48,835	43,855	...	88	19,963	39,935	...	...	...	...	...	...	15,871	44,505	164	...	...	38,165	38,165	89,925
Dhárwár	3,376	7,661	23,184	...	...	10,936	11,363	43,279	50,764	...	...	22,104	44,208	...	...	...	...	...	...	...	...	...	...	...	...	*	55,144
Bijápur	1,005	3,448	3,669	...	195	3,266	6,335	23,337	12,307	...	44	9,783	19,566	793	15,397	...	...	...	8,491	...	...	...	...	...	...	8,491	31,323
Kolába	419	475	...	...	16	493	...	...	...	...	...	...	...	390	1,688	...	...	...	1,542	16	38	...	...	...	44	1,586	2,079
Ratnágiri	...	...	...	...	...	...	58	15	...	...	...	33	66	...	...	...	...	...	...	...	...	...	...	...	...	...	66
Total ...	7,749	21,595	67,258	...	322	28,649	114,320	496,878	114,929	...	136	110.835	569,990	1,183	17,085	...	...	...	10,033	15,887	44,543	164	...	...	38,209	48,242	646,881

* The Divisional Officer reports that the figures in Columns Nos. 21 to 27 are not available, the Revenue Authorities not having carried out the provisions of Rule VIII of the Grazing Rules sanctioned in Government Resolution No. 3595, dated 23rd May 1890.

J. L. L. MACGREGOR,
Conservator of Forests, Southern Circle.

Belgaum, 25th September 1893.

FORM No. 56.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Area of Plantations, 1892-93.

Division.	Name of Plantation.	Area in Acres.				Receipts.	Charges.	Remarks.
		On 1st April 1892.	Added during the year.	Excluded during the year.	Area on 30th June 1893.	Of the year.		
	Regular Plantations.	Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	
Northern Kánara. Division,	Kadra	357	...	...	357	2,389	369	
	Mardi	110	...	...	110			
	Sulgeri	110	...	...	110			
	Kárwár	123	...	...	123	147	...	
	Bingi...	20	...	...	20			
	Arge	36	...	...	36			
	Birchi	221	...	...	221	...	...	
	Singatgeri	83	...	...	83	...	...	
	Bomanballi	200	...	...	200	...	...	
Central Kánara. Division,	Devarbail	21	...	...	21	...	126	
	Arbail	5	...	...	5	...	...	
Southern Kánara. Division,	Kasarcode	298	...	...	298	28	...	
Belgaum	Kalasgadde	13	...	...	13	...	...	
	Linganmath...	16	...	..	16	...	...	
	Deshnur	156	24	...	180	...	96	
Dhárwár	Kalgeri	21	...	...	21	...	...	
	Kambarganvi	25	...	...	25	...	88	
	Devikop	29	...	...	29	...	17	
	Kalkundi	275	...	...	275	...	45	
	Hirur...	12	...	...	12	...	11	
Bijápur	Mamdápur	174	...	...	174	...	...	
	Anantpur	90	...	...	90	...	12	
	Shivpur	12	...	...	12	...	...	
Kolába	Ramdharni	50	...	...	50	...	...	
	Rájwádi	12	...	...	12	...	...	
	Chochi	6	...	...	6	...	...	
	Nerle...	3	...	...	3	...	...	
	Bháliwádi	13	...	...	13	...	...	
	Boregaon	6	...	...	6	...	...	
	Kharvandi Kudore	2	...	...	2	...	...	
	Khadve	2	...	...	2	...	...	
	Beed	1	...	...	1	...	...	
	Palaspuri	1	...	...	1	...	...	
	Sugve	1	...	...	1	...	...	
	Puli	1	...	...	1	...	...	
	Savali	10	..	...	10	...	...	
	Paturne	1	...	...	1	...	...	
	Ambivli	1	...	...	1	...	...	
	Adosi...	97	...	...	97	...	...	
	Lavji...	71	...	...	71	...	...	
	Ubarvira	15	...	...	15	...	...	
	Jambrug	63	...	...	63	...	...	
	Sungde	68	...	...	68	...	...	
	Khopoli	45	...	...	45	...	...	
	Bhanváji	86	...	...	86	...	...	
	Nowse	32	...	...	32	...	...	
	Honád	20	...	...	20	...	...	
	Kumboli	46	...	...	46	...	...	
	Kharsundi	38	...	...	38	...	...	
	Vanaosal	2	...	...	2	...	...	
	Bhilaoli	37	...	...	37	...	...	
	Kalothe Mokasi	53	...	...	53	...	...	
	Mandop	41	...	...	41	...	...	
	Vinegaon	3	...	...	3	...	...	
	Kalothe Rayote	7	...	...	7	...	...	
	Nudao	2	...	...	2	...	...	
	Ningdoli	1	...	...	1	...	...	
	Dhamni	2	...	...	2	...	...	
	Vadgaon	38	...	...	38	...	...	
	Kansoli	8	...	...	8	...	...	
	Nodhel	24	...	...	24	...	...	
	Loniwáli	1	...	...	1	...	...	
	Vaverle	11	...	...	11	...	...	
	Pali Budruk...	9	...	...	9	...	...	
	Vadvihir	6	...	...	6	...	...	
	Manivli Manawli	13	...	...	13	...	...	
	Varse...	323	...	...	323	...	...	
	Boregaon Khurd	119	...	...	119	...	...	
	Sudewádi	190	...	...	190	...	...	
	Khálápur	3	...	...	3	...	...	
	Ghodiaoli	7	...	...	7	...	...	
Ratnágiri	Dápoli	81	17	...	98	20	84	
	Total, Regular Plantations...	4,079	41	...	4,120	2,584	848	

FORM No. 56—*continued.*

Division.	Name of Plantation.	Area in Acres. On 1st April 1892.	Added during the year.	Excluded during the year.	Area on 30th June 1893.	Receipts. Of the year.	Charges. Of the year.	Remarks.
	Cultural Operations.	Acres.	Acres.	Acres.	Acres.	Rs.	Rs.	
Central Division, Kánara.	Sahasráwali	12	...	...	12	...	...	
	Yellápur	26	...	...	26	21	74	
	Harwada	1	...	...	1	...	...	
	Baleguli	8	...	...	8	...	190	
	Hulihond	4	6	...	10	...	139	
	Sakalben	...	4	...	4	...	149	
Southern Division, Kánara.	Banwási	27	...	...	27	...	...	
	Anegundi	7	...	...	7	...	...	
	Kalkatti	2	...	...	2	...	...	
Belgaum	Three kumri villages in Belgaum	21	...	21	...	...	...	The 20 gunthás shown in last year's return against Nagargall have been omitted, being half an acre (Section 268 of the Forest Code).
	Konnur	200	...	...	200	...	...	
	Kanburgi	5	...	...	5	...	...	
	Maskenhatti	2	...	...	2	...	...	
	Hemadge	300	...	300	...	...	...	
Dhárwár	Kambarganvi	375	...	...	375	...	...	
	Hosur	307	...	...	307	...	...	
	Hunshikumri	300	...	...	300	...	...	
	Karkikop	1	...	...	1	...	...	
	Dhundshi	80	...	...	80	...	...	
	Allipur	16	...	...	16	...	...	
	Bábápur	127	...	...	127	...	...	
	Channikatti	10	...	...	10	...	...	
	Bassapur	10	...	...	10	...	...	
	Harikatti	2	...	...	2	...	...	
	Banihatti	42	...	...	42	...	...	
	Holtikota	200	...	...	200	...	...	
	Ragikallapur	25	...	...	25	...	...	
	Kalkeri	200	...	...	200	...	...	
	Galginkatti	470	...	...	470	...	...	
	Tersikop	300	...	...	300	...	...	
	Kalkundi	100	...	...	100	...	...	
	Hindasgeri	400	...	...	400	...	...	
	Halekote Chikeri	706	...	...	706	...	...	
	Dudihalli	51	...	...	51	...	...	
	Nidnigal	44	...	...	44	...	...	
	Bálapur	8	...	...	8	...	...	
	Chikbar	46	...	...	46	...	...	
	Medleri	144	...	...	144	...	...	
	Dámbal	463	...	...	463	...	...	
	Sankadwadak	268	...	...	268	...	...	
	Nabapur	172	...	...	172	...	...	
Bijápur	Mamdápur	216	...	...	216	...	...	
	Kaládgi	195	...	...	195	...	5	
	Jaknur	9	...	...	9	...	...	
	Hosur	2	...	...	2	...	...	The area shown in last year's return against Khánápur and Nagral have been omitted, being ½ acre in each case
	Manglur	2	...	...	2	...	...	
Kolába	Sattád	81	...	...	81	...	...	
	Ektád	5	...	...	5	...	...	
	Several places in Karjat ...	20	...	...	20	...	...	
	Do. in Khálápur..	2	...	...	2	...	...	
Ratnágiri	Dápoli	55	...	55	...	...	...	
	Khed...	17	...	17	...	...	...	
	Chiplún	73	...	73	...	...	...	
	Sangameshvar	128	...	128	...	...	...	
	Málvan	30	...	30	...	...	...	
	Total, Cultural Operations...	6,317*	10	624	5,703	21	557	* The difference of 1 acre between the closing balance of 1891-92 and opening balance of 1892-93, is owing to fractions of the acre having been omitted.
	Grand Total ...	10,386	51	624	9,823	2,605	1,405	

Belgaum, 25th September 1893.

J. L. L. MacGREGOR,
Conservator of Forests, Southern Circle,

FORM No. 57.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Outturn (in cubic feet solid) of Timber and Fuel during the year 1892-93, and Agency of Exploitation.

Division.	Timber in the rough; Logs.					Timber in the rough; Poles.					Sawn or Squared Timber.					Miscellaneous.					Fuel.					Total.
	Government.	Purchasers.	Free-grants.	Right-holders.	Total.	Government.	Purchasers.	Free-grants.	Right-holders.	Total.	Government.	Purchasers.	Free-grants.	Right-holders.	Total.	Government.	Purchasers.	Free-grants.	Right-holders.	Total.	Government.	Purchasers.	Free-grants.	Right-holders.	Total.	Outturn.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	C. ft.	C. ft.	C. ft.			C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
Northern Division of Kánara ...	49,728	64,170	[illegible]	...	[illegible]17	32,550	15	...	...	32,565	245,357	12,149	8,608	...	266,114	3,033 Bamboos No. 300	..... Bamboos No. 3,128,135	..... Bamboos No. 15,765	200	3,233 Bamboos No. 3,144,200	348,007	358,220	2,334	...	708,561	1,139,690 Bamboos No. 3,144,200
Central Division of Kánara	58,504	30,571	...	...	89,075	20,348	1,328	1,700	...	23,376	72,268	22,759	28,005	...	123,032	..... Bamboos No. 294 Sandalwood Khandis 21-6-14	..... Bamboos No. 1,170,500 Bamboos on contract No. 100,000	..... Bamboos No. 7,120	...	..... Bamboos No. 1,177,914 Bamboos on contract No. 100,000 Sandalwood Khandis 21-6-14	21,394	783,980	...	...	805,374	1,040,857 Bamboos No. 1,177,914 Bamboos on contract No. 100,000 Sandalwood Khandis 21-6-14
Southern Division of Kánara... ...	154	71,055	22,057	...	93,266	...	...	...	...	...	14,137	...	...	...	14,137	..... Sandalwood Khandis 54-14-7	..... Bamboos No. 177,068	.....	...	..... Bamboos No. 177,068 Sandalwood Khandis 54-14-7	10,570	201,696	...	...	212,266	319,669 Bamboos No. 177,068 Sandalwood Khandis 54-14-7
Belgaum Division...	...	14,806	...	...	14,806	44,016	8,391	3,036	...	55,443	12,060	854	216	...	13,130	9,125 Bamboos No. 50 Sandalwood trees 131 Sandalwood pieces 53	1,347 Bamboos No. 674,101	..... Bamboos No. 4,366	...	10,472 Bamboos No. 678,517 Sandalwood trees 131 Sandalwood pieces 53	2,307,641	386,790	792	...	2,695,232	2,789,083 Bamboos No. 678,517 Sandalwood trees No. 131 Sandalwood pieces 53
Dhárwár do. ...	...	...	...	...	...	23,435	2,645	202	...	26,282	...	...	...	...	...	.....	..... Bamboos No. 464,534	..... Bamboos No. 600	...	..... Bamboos No. 465,134	139,356	88,045	...	...	227,401	253,683 Bamboos No. 465,134
Bijápur do. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.....	3,069	.....	...	3,069	...	215,233	...	...	215,233	218,302
Kolába do. ...	...	...	...	...	...	598,115	88,905	17,190	2,370	706,580	20	...	...	...	20	1,710	.....	.....	...	1,710	...	480,814	...	...	480,814	1,189,124
Ratnágiri do. ...	...	...	...	...	...	5,958	...	...	...	5,958	...	...	...	...	...	.....	63,292	100	...	63,392	2,475	152,369	...	...	154,844	224,194
Total ...	108,386	180,602	37,376	...	326,364	724,422	101,284	22,128	2,370	850,204	343,842	35,762	36,829	...	416,433	13,868 Bamboos No. 644 Sandalwood Khandis 76-0-21 Sandalwood trees 131 Sandalwood pieces 53.	67,708 Bamboos No. 5,614,338 Bamboos on contract No. 100,000	100 Bamboos No. 27,851	200	81,876 Bamboos No. 5,642,833 Bamboos on contract 100,000 Sandalwood Khandis 76-0-21 Sandalwood trees 131 Sandalwood pieces 53.	2,829,443	2,667,156	3,126	...	5,499,725	7,174,602 Bamboos No. 5,642,833 Bamboos on contract No. 100,000 Sandalwood Khandis 76-0-21 Sandalwood trees 131 Sandalwood pieces 53.

J. L. L. MACGREGOR,

FORM No. 58.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Outturn of Minor Forest Produce.

Description of Produce.	PRODUCE REMOVED OR UTILIZED.										REMARKS.
	By Government Agency.		By Purchasers.		By free grants.		By right-holders.		Total.		
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
		Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.	
Honey	...	...	...	552 0 0	...	...	...	...	...	552 0 0	
Stones ... ... Cubic Feet.	...	...	350	1 0 0	...	...	...	...	350	1 0 0	
Myrabollams ... ... Khandis.	701	12,044 0 0	...	...	...	...	...	...	701	12,044 0 0	
Shigekái ... ... Do.	...	...	...	905 0 0	...	...	...	...	...	905 0 0	
Cinnamon bark	...	...	...	72 0 0	...	...	...	...	...	72 0 0	
Wild turmeric	...	...	...	7 0 0	...	...	...	...	...	7 0 0	
Tapping fees on Baini trees	...	...	...	33 0 0	...	...	...	...	...	33 0 0	
Shindoli branches ... Head-loads.	...	...	1,805	56 0 0	...	...	...	...	1,805	56 0 0	
Do. ... Cart-loads.	...	...	99	50 0 0	...	...	...	...	99	50 0 0	
Canes ... ... Head-loads.	...	...	9	2 0 0	...	...	...	...	9	2 0 0	
Pepper	...	...	...	12 0 0	...	...	...	...	...	12 0 0	
Nux vomica	...	...	...	32 0 0	...	...	...	...	...	32 0 0	
Goting	...	...	...	10 0 0	...	...	...	...	...	10 0 0	
Cinnamon leaves	...	...	...	11 0 0	...	...	...	...	...	11 0 0	
Divi-Divi seeds ... ... Bags.	32	64 0 0	...	...	...	...	...	...	32	64 0 0	
Shembe bark	...	...	...	25 0 0	...	...	...	...	...	25 0 0	
Grazing fees	...	...	...	13,252 0 0	...	...	...	...	...	13,252 0 0	
Total ...	...	12,108 0 0	...	15,020 0 0	...	...	...	...	...	27,128 0 0	
Grass ... ... Bundles.	26,370	83 0 0	2,000	1 0 0	...	...	...	...	28,370	84 0 0	
Myrabollams ... ... Khandis.	149	2,616 0 0	...	...	...	...	...	...	149	2,616 0 0	
Shigekái ... ... Do.	4	81 0 0	...	...	...	...	...	...	4	81 0 0	
Shigechalli ... ... Maunds.	...	...	299	37 0 0	...	...	...	...	299	37 0 0	
Grazing fees	...	...	...	13,047 0 0	...	...	...	...	...	13,047 0 0	
Earth ... ... Cubic Feet.	...	...	2,088	7 0 0	...	...	...	...	2,088	7 0 0	
Stones ... ... Do.	...	...	2,592	9 0 0	...	...	...	...	2,592	9 0 0	
Quarry fees	...	...	...	4 0 0	...	...	...	...	...	4 0 0	
Honey	...	...	...	1,311 0 0	...	...	...	...	...	1,311 0 0	
Grass	...	...	...	5 0 0	...	...	...	...	...	5 0 0	
Rámphal and Rámpatri	...	...	...	1,959 0 0	...	...	...	...	...	1,959 0 0	
Cinnamon	...	...	...	121 0 0	...	...	...	...	...	121 0 0	
Thorns ... ... Cart-loads.	...	...	20	1 0 0	...	...	...	...	20	1 0 0	
Cáju seeds	...	...	...	26 0 0	...	...	...	...	...	26 0 0	
Baini trees	...	...	8	10 0 0	...	...	...	...	8	10 0 0	
Tapping fees on Baini trees	...	...	...	22 0 0	...	...	...	...	...	22 0 0	
Canes ... ... Head-loads.	...	...	193	48 0 0	...	...	...	...	193	48 0 0	
Skins and horns ... ... No.	...	...	99	108 0 0	...	...	...	...	99	108 0 0	
Betelnuts and Jack fruits	...	..	...	10 0 0	...	...	...	...	...	10 0 0	
Total ...	...	2,780 0 0	...	16,726 0 0	...	...	...	...	...	19,506 0 0	
Myrabollams ... ... Khandis	1,505	37,027 0 0	...	...	...	...	...	...	1,505	37,027 0 0	
Shigekái ... ... Do.	27	513 0 0	...	...	...	...	...	...	27	513 0 0	
Grazing fees	...	...	...	18,973 0 0	...	...	...	...	...	18,973 0 0	
Honey	...	...	...	1,060 0 0	...	...	...	...	...	1,060 0 0	
Grass	...	...	...	25 0 0	...	...	...	...	...	25 0 0	
Fruits	...	...	...	3 0 0	...	...	...	...	...	3 0 0	
Rámpatri	...	...	...	624 0 0	...	...	...	...	...	624 0 0	
Cinnamon	...	...	...	176 0 0	...	...	...	...	...	176 0 0	
Wild pepper	...	...	...	39 0 0	...	...	...	...	...	39 0 0	
Nux vomica	...	...	...	61 0 0	...	...	...	...	...	61 0 0	
Catechu	...	...	...	4,191 0 0	...	...	...	...	...	4,191 0 0	
Palm trees	...	...	147	187 0 0	...	...	...	...	147	187 0 0	
Aleksist	...	...	...	31 0 0	...	...	...	...	...	31 0 0	
Canes ... ... Head-loads.	...	...	400	178 0 0	...	...	...	...	400	178 0 0	
Thorns ... ... Cart-loads.	...	...	136	10 0 0	...	...	...	...	136	10 0 0	
Pappu (green leaves for manure) ... ... Head-loads.	...	...	49	1 0 0	...	...	...	...	49	1 0 0	
Canes ... . Cart-loads.	...	...	1,740	109 0 0	...	...	...	...	1,740	109 0 0	
Grazing fees	...	...	...	187 0 0	...	...	...	...	...	187 0 0	
Tarwad bark ... ... Head-loads.	...	...	183	45 0 0	...	...	...	...	183	45 0 0	
Total ...	...	37,540 0 0	...	25,905 0 0	...	...	...	...	...	63,445 0 0	
Myrabollams ... ... Khandis.	2,891	45,371 0 0	...	...	...	...	...	...	2,891	45,371 0 0	
Grazing fees	...	...	...	28,261 0 0	...	...	...	...	...	28,261 0 0	
Grass from Kurans	...	...	...	4,196 0 0	...	...	...	...	...	4,196 0 0	
Grass from Depôts	...	...	...	26 0 0	...	...	...	...	...	26 0 0	
Grass ... ... Head-loads.	...	...	632	10 0 0	...	...	...	...	632	10 0 0	
Thorns ... ... Cart-loads.	...	...	133	51 0 0	...	...	...	...	133	51 0 0	
Do. ... ... Head-loads.	...	...	632	30 0 0	...	...	...	...	632	30 0 0	
Do. ... ... Bullock-loads.	...	...	374	35 0 0	...	...	...	...	374	35 0 0	
Karvi ... ... Cart-loads.	...	...	193	144 0 0	...	...	...	...	193	144 0 0	
Tamarind ... ... Maunds.	...	...	6	2 0 0	...	...	...	...	6	2 0 0	
Canes ... ... Head-loads.	...	...	61	4 0 0	...	...	...	...	61	4 0 0	
Shigekái farm ... ... Maunds.	...	...	2,800	2,400 0 0	...	...	...	...	2,800	2,400 0 0	
Fruit farm	...	...	...	2 0 0	...	...	...	...	...	2 0 0	
Honey and Wax farm ... Maunds.	...	...	337	444 0 0	...	...	...	...	337	444 0 0	
Harda farm ... ... Do.	...	...	20	32 0 0	...	...	...	...	20	32 0 0	
Rági ... ... Bags.	...	...	62	7 0 0	...	...	...	...	62	7 0 0	
Stones ... ... Cubic Feet.	...	...	7,713	51 0 0	...	...	...	...	7,713	51 0 0	
Do. ... ... Cart-loads.	...	...	8,823	656 0 0	...	...	...	...	8,823	656 0 0	
Sand ... ... Cubic Feet.	...	...	10,760	7 0 0	...	...	...	...	10,760	7 0 0	
Muram ... ... do.	...	...	6,000	4 0 0	...	...	...	...	6,000	4 0 0	
Earth ... ... Head-loads.	...	...	120	1 0 0	...	...	...	...	120	1 0 0	
Do. ... ... Donkey-loads.	...	...	5,474	86 0 0	...	...	...	...	5,474	86 0 0	
Tapping fees on toddy trees	...	...	...	15 0 0	...	...	...	...	...	15 0 0	
Wild date-palm leaves ... Cart-loads.	...	...	562	290 0 0	...	...	...	...	562	290 0 0	
Do. do. ... Head-loads.	...	...	6,185	193 0 0	...	...	...	...	6,185	193 0 0	
Dry palm trees ... ... No.	...	...	21	11 0 0	...	...	...	...	21	11 0 0	
Bandurgi branches ... Head-loads.	...	...	472	22 0 0	...	...	...	...	472	22 0 0	
Do. do. ... Cart-loads.	...	...	7	5 0 0	...	...	...	...	7	5 0 0	
Bábul bark ... ... do.	...	...	4	8 0 0	...	...	...	...	4	8 0 0	
Tarwad bark ... ... Head-loads.	...	...	982	92 0 0	...	...	...	...	982	92 0 0	
Total ...	...	45,371 0 0	...	37,085 0 0	...	...	...	...	...	82,456 0 0	

FORM No. 58—*continued.*

Division.	Description of Produce.	Produce removed or utilized.										Rem.
		By Government Agency.		By Purchasers.		By free-grants.		By right-holders.		Total.		
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
			Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.	
Dhárwár Division.	Grazing fees	...	.....	..	24,788 0 0	...	...	...	...	...	24,788 0 0	
	Honey	...	.....	...	107 0 0	...	...	...	...	...	107 0 0	
	Fruit	...	.....	...	25 0 0	...	...	...	...	...	25 0 0	
	Karanj seed	...	.....	...	443 0 0	...	...	...	...	...	443 0 0	
	Bábul-pods	...	.....	...	216 0 0	...	...	...	...	...	216 0 0	
	Myrabollams	4	66 0 0	...	69 0 0	...	...	...	...	4	135 0 0	
	Stones (Cubic Feet)	...	.....	51,030	239 0 0	...	...	...	...	51,030	239 0 0	
	Earth (Do.)	...	.....	1,836	7 0 0	...	...	...	...	1,836	7 0 0	
	Tapping fees on toddy trees	...	.....	...	25 0 0	...	...	...	...	...	25 0 0	
	Grass (Pullies)	129,185	253 0 0	8,050	7 0 0	...	...	...	...	137,235	260 0 0	
	Grass (Head-loads)	...	.....	3,928	121 0 0	...	...	...	...	3,928	121 0 0	
	Do. for brooms	...	.....	96	5 0 0	...	...	...	...	96	5 0 0	
	Do. for thatching (Head-loads)	...	.....	3,145	63 0 0	...	...	...	...	3,145	63 0 0	
	Do. (Cart-loads)	...	.....	117	30 0 0	...	...	...	...	117	30 0 0	
	Do. from Kurans and closed numbers	...	.....	...	1,432 0 0	...	...	...	...	...	1,432 0 0	
	Toddy trees branches (Animal-loads)	...	.....	378	30 0 0	...	...	...	...	378	30 0 0	
	Do. (Head-loads)	...	.....	370	15 0 0	...	...	...	...	370	15 0 0	
	Do. (Cart-loads)	...	.....	87	5 0 0	...	...	...	...	87	5 0 0	
	Thorns (Animal-loads)	...	.....	5,482	314 0 0	...	...	...	...	5,482	314 0 0	
	Tárwád bark	...	.....	...	1,605 0 0	...	...	...	...	...	1,605 0 0	
	Total	...	319 0 0	...	29,546 0 0	...	...	...	...	...	29,865 0 0	
Bijápur Division.	Stones (Cubic Feet)	...	.....	112,868	1,795 0 0	...	...	...	...	112,868	1,795 0 0	
	Earth (Do.)	...	.....	11,869	114 0 0	...	...	...	...	11,869	114 0 0	
	Tárwád bark	...	.....	...	148 0 0	...	...	...	...	...	148 0 0	
	Grazing fees	...	.....	...	14,675 0 0	...	...	...	...	...	14,675 0 0	
	Total	...	.....	...	16,732 0 0	...	...	...	...	...	16,732 0	
Kolába Division.	Grass and Grazing fees	...	.....	...	2,947 0 0	...	...	...	...	...	2,947 0	
	Thorns and fruits	...	.....	...	82 0 0	...	...	...	...	...	82 0 0	
	Myrabollams and Shigekái	...	.....	...	1,238 0 0	...	...	...	...	...	1,238 0 0	
	Apta leaves	...	.....	...	516 0 0	...	...	...	...	...	516 0 0	
	Total	...	.....	...	4,783 0 0	...	...	...	...	...	4,783 0 0	
Ratnágiri Division.	Myrabollams (Maunds)	15	21 0 0	...	.....	...	...	...	...	15	21 0 0	
	Shembo bark	...	.....	...	53 0 0	...	...	...	...	...	53 0 0	
	Fruits	...	.....	...	2 0 0	...	...	...	...	...	2 0 0	
	Fodder grass	...	.....	...	335 0 0	...	...	...	...	...	335 0 0	
	Total	...	21 0 0	...	390 0 0	...	...	...	...	...	411 0	

Belgaum, 25th September 1893.

J. L. L. MacGREGOR
Conservator of Forests, Southern

FORM No. 59.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1892-93

Particulars.	No. or Quantity.	Cubic Feet.	Total of each Head. No. or Quantity.	Total of each Head. Cubic Feet.
TIMBER.				
BALANCE AT THE COMMENCEMENT OF THE YEAR				
Northern Division of Kánara.				
Teakwood logs	9,010	254,936		
Do. round pieces ...	111	282		
Do. sleepers	650	975		
Do. slabs	8,094	2,665		
Do. poles	7,558	15,116		
Blackwood logs	489	11,957		
Junglewood logs...	1,506	43,794		
Do. poles	7	34		
			27,425	329,809
Central Division of Kánara.				
Teak logs	7,587	90,908		
Do. poles	1,163	6,247		
Do. round pieces	5,776	29,630		
Do. sleepers	301	374		
Do. slabs...	13,936	9,385		
Do. round board	1	...		
Do. ends and pieces	2,247	2,730		
Blackwood logs	472	3,566		
Do. poles	168	486		
ing boards	40	...		
iti pieces	975	1,272		
cellaneous pieces	...	12		
glewood logs	2,270	45,983		
			34,936	190,593
Southern Division of Kánara.				
eakwood	430	9,654		
Do. sleepers	23	23		
Do. round sleeper pieces ...	3	6		
unglewood	624	12,241		
			1,130	21,923
Belgaum Division.				
eak logs	58	538		
Do. poles	110	461		
unglewood	5	68		
Do. poles	10	53		
ti pieces	118	218		
			301	1,338
Dhárwár Division.				
rafters	11,196	36,763		
wood rafters	6	27		
ewood do.	55	194		
jeráiti do.	1,079	2,080		
			12,336	39,064
Koldba Division.				
Teak pieces of sorts	132	426		
			132	426
Ratnágiri Division.				
Miscellaneous pieces	56	137		
			56	137
Total Balance ...			76,316	583,290
RECEIVED FROM THE FORESTS IN DEPÔTS.				
Teak logs	13,757	298,788		
Do. poles...	209,576	699,298		
Do. pieces	112	82		
Do. slabs...	33	100		
Do. sleepers	2,775	3,229		
Blackwood logs	2,283	52,709		
Do. pieces	71	285		
Do. poles...	109	431		
Junglewood logs...	3,187	70,181		
Do. pieces	83	357		
Do. sleepers	61	112		
Do. billets	6	2		
Do. handles	3,000	100		
Do. poles	4,157	14,250		
Jeraiti pieces	4,567	8,498		
Do. wood stacks	47	1,410	243,529	1,149,832

Particulars.	No. or Quantity.	Cubic Feet.	Total of each Head. No. or Quantity.	Total of each Head. Cubic Feet.
REMOVED BY PURCHASERS FROM DEPÔTS.				
Teak logs	13,968	292,219		
Do. sleepers	1,354	1,979		
Do. poles	219,960	719,375		
Do. round pieces...	4,004	15,097		
Do. pieces...	112	82		
Miscellaneous teak pieces	...	12		
Teak slabs	5,858	2,525		
Blackwood logs	1,112	27,300		
Do. poles	298	1,042		
Junglewood logs	5,037	83,952		
Do. pieces	55	65		
Do. handles	3,000	100		
Do. sleepers	5	9		
Do. poles	3,079	10,008		
Jeráiti pieces	6,693	12,002		
Do. stacks	47	1,410		
Sitting boards	5	...		
			264,587	1,167,177
SOLD LOCALLY.				
Teak logs	37	358		
Do. poles	1,768	2,510		
Do. pieces	525	490		
Do. round pieces	1,072	1,316		
Blackwood poles	45	116		
Do. pieces...	9	22		
Junglewood logs	59	341		
Do. poles	1,929	2,546		
Do. pieces	1,013	1,021		
Do. stakes	371	25		
Round sleeper pieces	6	62		
Casuarina poles	53	423		
Honne logs...	4	53		
Jeráiti pieces	2	3		
Harda tree...	1	5		
			6,889	9,290
USED BY THE DEPARTMENT.				
Teak slabs	33	100		
Do. logs	12	103		
Blackwood pieces...	8	24		
Junglewood do.	8	24		
Do. billets	6	2		
Teak rafter...	1	2		
			68	255
TRANSFERRED TO OTHER SALE DEPÔTS.				
Teak logs	2,475	43,803		
Junglewood logs	278	7,369		
			2,753	51,172
BALANCE AT CLOSE OF THE YEAR.				
Northern Division of Kánara.				
Teak logs	9,043	264,133		
Do. sleepers	46	69		
Do. slabs	8,078	2,650		
Blackwood logs	1,754	34,418		
Junglewood do.	1,414	45,009		
Do. sleepers	56	103		
Do. poles	7	34		
			20,398	346,416
Central Division of Kánara.				
Teak logs	7,869	98,419		
Junglewood logs	1,727	38,624		
Teak poles	2,464	10,412		
Blackwood logs	371	6,401		
Do. poles	50	150		
Jeráiti pieces	30	54		
Teak sleepers	2,326	2,530		
Do. slabs	8,094	6,875		
Sitting Boards	35	...		
Round teak boards	1	...		
Round teak pieces	1,883	14,815		
Teak pieces	2,247	2,730		
			27,097	131,010
Southern Division of Kanara.				
Jungle wood	394	7,869		
Sleepers	23	23		
Round sleeper pieces	3	5		
			420	7,897

FORM No. 59—*continued.*

Particulars.	No. or Quantity.	Cubic Feet.	Total of each head. No. or Quantity.	Total of each head. Cubic Feet.
Received from the Forests and sold locally.				
Teak logs	37	358		
Do. poles	1,763	2,510		
Do. pieces	525	490		
Do. round pieces	1,078	1,378		
Blackwood poles	45	116		
Do. pieces	9	22		
Junglewood logs	59	341		
Do. poles	2,092	2,658		
Do. pieces	850	900		
Do. stakes	371	25		
Casuarina poles	53	422		
Honne logs	4	53		
Jeraiti pieces	2	3		
Harda tree	1	5		
			6,889	9,290
Received by transfer from Sale Depôts.				
Teak logs	2,475	43,803		
Junglewood logs	278	7,369		
			2,753	51,172
Total, Timber	...	.....	329,787	1,793,584
Balance at commencement of the year.				
Central Division of Kánara.				
Firewood	...	2,596		
			...	2,596
Southern Division of Kánara.				
Firewood	...	12,762		
			...	12,762
Belgaum Division.				
Firewood	...	212,139		
			...	212,139
Dhárwár Division.				
Firewood	...	28,332		
			...	28,332
Ratnágiri Division.				
Firewood	...	250	...	250
Total, Balance	...	.....	...	256,079
Received from the Forests in Depôts.				
Firewood	...	2,824,085		
Charcoal ... Muras.	129	.....		
			129	2,824,085
Received from the Forests and sold locally.				
Firewood	...	5,790		
			...	5,790
Total, Firewood and Charcoal	...	.....	129	3,085,954
Balance at commencement of the year.				
Belgaum Division.				
Bamboos	50	.....		
			50	.....
Received from the Forests in Depôts.				
Bamboos	5,300	.....		
			5,300	.....
Received from the Forests and sold locally.				
Bamboos	294	.....		
			294	.....
Total, Bamboos	...	.....	5,644	.....
Balance at commencement of the year.				
Central Division of Kánara.				
Sandalwood ...Trees.	10	.....	...	.....
Do. ...Billets.	70	.....	...	.....
Do. ...Chips.	...	0-3-0	...	.....
Do. whitewood... Stacks.	1	.....	...	.....
Southern Division of Kánara.				
Sandalwood chips ...Carts.	5	.....	...	.....
Do. billets	1	.....	...	.....
Do. oil ... ...Tolas.	85½	.....	...	.....
Dhárwár Division.				
Sandalwood ...Roots.	144	.....	...	.....
Do. ...Branches.	23	.....	...	.....

Particulars.	No. or Quantity.	Cubic Feet.	Total of each head. No. or Quantity.	Total of each head. Cubic Feet.
Timber—*continued.*				
Balance at close of the year —*continued.*				
Belgaum Division.				
Junglewood poles	134	1,165		
Do. pieces	20	208		
Blackwood poles	10	126		
Teak poles	11	21		
			175	[illegible]
Dhárwár Division.				
Teak rafters	1,267	4,286		
Junglewood rafters	29	137		
Jeralti do.	16	12		
			1,312	4,435
Kolába Division.				
Teak pieces of sorts	6,088	24,352	6,088	24,352
Total, Balance	...	.....	55,490	565,690
Total, Timber	...	.....	329,787	1,793,584
Firewood.				
Removed by Purchasers from Depôts.				
Firewood	...	2,878,336		
Charcoal ... Muras.	129	.....		
			129	2,878,336
Sold locally.				
Firewood	...	5,790	...	[illegible]
Lost or written off as useless.				
Firewood	...	19,931	...	[illegible]
Balance at close of the year.				
Central Division of Kánara.				
Firewood	...	2,510	...	2,5[illegible]
Southern Division of Kánara.				
Firewood	...	270	...	[illegible]
Belgaum Division.				
Firewood	...	146,591	...	14[illegible]
Dhárwár Division.				
Firewood	...	32,526	...	3[illegible]
Total, Balance	...	.....	...	181,897
Total, Firewood and Charcoal	...	.....	129	3,085,954
Bamboos.				
Removed by Purchasers from Depôts.				
Bamboos	350	.....	350	.....
Sold locally.				
Bamboos	294	.....	294	.....
Used by the Department.				
Bamboos	5,000	.....	5,000	.....
Total, Bamboos	...	.....	5,644	.....
Sandalwood.				
Removed by Purchasers from Depôts.				
Sandalwood ...Trees	141	.....	...	.....
Do. ...Roots	82	.....	...	.....
Do. ...Pieces	3	.....	...	.....
Do. ...Billets	9,913	.....	...	.....
Do. chips ...Carts	26½	.....	...	.....
Do. do. ...Khandis	...	38-11-0	...	.....
Do. ...Stacks	3	.....	...	.....
Do. whitewood ...Do.	9	.....	...	.....
Do. do. ...Billets	187	.....	...	.....
Do. oil ...Tolas	85½	.....	...	.....
Do. Saw-dust ...Bags	24	.....	...	.....
Do. do. ...Khandis	...	0-6-0	...	.....

FORM No. 59—*concluded.*

Particulars.	No. or Quantity.	Cubic Feet.	Total of each head. No. or Quantity.	Total of each head. Cubic Feet.
Received from the Forests in Depôts.				
Sandalwood ... ... Trees.	1,949	..		
Do. .. ..Branches.	528	..		
Do. .. .. Pieces.	359	..		
Do. .. .. Roots.	193	..		
Do. .. .. Billets.	2,431	..		
Do. fellings and saw dust ... ... Bags.	23	..		
Do. Chips ... ... Carts.	21½	..		
Do. white wood ... Billets.	187	..		
Received from the Forests and sold locally.				
Sandalwood ... ... Trees.	1,961	..		
Do. ... ... Branches.	43	..		
Do. ... ... Roots.	17	..		
Do. ... ... Pieces.	196	..		
Received by Conversion in Depôts.				
Sandalwood billets ...	7,478	..		
Do. chips ... ... Khandis.	..	33-8-0		
Do. saw dust ... Khandis.	..	0-6-0		
Do. white wood ... Carts.	8	..		
Do. ... ... Roots.	82	..		
Do. chips ... ... Stacks.	3	..		
Balance at commencement of the year.				
Northern Division of Kánara.				
...rabollams ... ... Kh...dis.	..	34-0-0	18	34-0-0
...i Divi seed ... ...s.	18	..		
Central Division of Kánara.				
Myrabollams ... ... Khandis.	..	1-18-27		
Shigekai ... ... Khandis.	..	1-16-11½		
Grass... ... ... Bundles.	134,993	..	134,993	*3-10-10½
Southern Division of Kánara.				
...rabollams ... ... Khandis.	..	433-0-1		
...igekai ... ... Khandis.	..	40-7-21		473-7-22
Belgaum Division.				
...yrabollams .. .. Khandis.	..	140-2-0	..	140-2-0
Dhárwár Division.				
Grass .. .. Bundles.	143,055	..	143,055	
Total, Balance ..	..	..	278,048	*650-20-4½
Received from the Forests in Depôts.				
Myrabollams .. .. Khandis.	..	5,076-16½		
Shigekai .. .. .. Khandis.	..	47-6-6		
Grass .. .. Bundles.	97,247	..	97,247	5,123-22-6½
Divi Divi seed .. .. Bags.	13½	..	13½	
Received from Forests and sold locally.				
Myrabollams .. .. Khandis.	..	0-23-3	..	0-23-3
Total, Minor Produce ..			375,295	5,775-15-14½

Particulars.	No. or Quantity.	Cubic Feet.	Total of each heads. No. or Quantity.	Total of each heads. Cubic Feet.
SANDALWOOD—*continued.*				
Sold locally.				
Sandalwood .. .. .. Trees.	1,961			
Do. .. .. .. Branches.	43			
Do. .. .. .. Pieces.	196			
Do. .. .. .. Roots.	17			
Converted in Depôts.				
Sandalwood .. .. .. Trees.	1,818			
Do. .. .. .. Branches.	651			
Do. .. .. .. Roots.	277			
Do. .. .. .. Pieces.	330			
Balance at close of the year.				
Central Division of Kánara.				
Sandalwood .. .. .. Billets.	2			
Southern Division of Kánara.				
Sandalwood .. .. .. Billets.	2			
Dhárwár Division.				
Sandalwood .. .. .. Billets.	63			
Do. .. .. .. Roots.	60			
Do. .. .. .. Pieces.	26			
MINOR PRODUCE.				
Removed by Purchasers from Depôts.				
Myrabollams .. .. Khandis.	..	5,678-16-21½		
Shigekai .. .. .. Khandis.	..	66-1-1½		
Grass .. .. .. Bundles.	155,555	..		
Divi Divi seed .. .. Bags.	31½	..	155,555	5,744-17-23
Lost or written off as useless.				
Shigekai .. .. .. Khandis.	..	5-19-15½		
Grass .. .. .. Bundles.	119,813	..	119,813	5-19-15½
Sold locally.				
Myrabollams .. .. Khandis.	..	0-23-3	..	0-23-3
Used by the Department.				
Grass .. .. Bundles.	75,202	..		
Myrabollams .. .. Khandis.	..	0-11-27	75,202	0-11-27
Balance at close of the year.				
Central Division of Kánara.				
Grass .. .. .. Bundles.	24,725	..		
Shigekai .. .. .. Khandis.	..	0-2-2		
Myrabollams .. .. Khandis.	..	1-19-0	24,725	1-21-2
Southern Division of Kánara.				
Myrabollams .. .. Khandis.	..	4-14-8		
Shigekai .. .. .. Khandis.	..	17-7-20	..	21-22-0
Total, Balance ..	..		24,725	23-18-2
Total, Minor Produce ..	..		375,295	5,775-15-14½

* The difference is owing to the weighment of myrabollams and shigekai having been taken this year at 25 maunds a khandi instead of 20 maunds as taken last year.

J. L. L. MacGREGOR,
Conservator of Forests, Southern Circle.

Belgaum, 25th September 1893.

FORM No. 60.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Abstract showing the Value of Timber and other Produce at Sale Depôts for the year 1892-93.

Description of Timber and other Produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.		Remarks
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.	
			Rs. a. p.			Rs. a. p.			
TIMBER.									
Northern Division of Kánara.									
Teakwood logs	9,010	2,54,986	3,25,786 0 0	9,043	2,64,133	3,15,947 0 0	.....	9,839	
Blackwood logs	489	11,957	11,479 0 0	1,754	34,418	25,535 0 0	14,056	.....	
Junglewood logs...	1,506	43,794	35,035 0 0	1,414	45,009	36,010 0 0	975	.....	
Teak round pieces	111	282	55 0 0	.....	.....	.....	.....	55	
Do. sleepers	650	975	325 0 0	46	69	10 0 0	.....	315	
Do. slabs...	8,094	2,665	108 0 0	8,078	2,650	100 0 0	.....	8	
Junglewood sleepers	.....	.....	.....	56	103	40 0 0	40	.....	
Do. poles	7	34	5 0 0	7	34	5 0 0	.....	.....	
Teak do.	7,558	15,116	911 0 0	.....	.....	.....	.....	911	
Total ...	.....	.....	3,73,704 0 0	.....	.....	3,77,647 0 0	15,071	11,128	
Central Division of Kánara.									
Logs	10,329	1,40,457	1,34,840 0 0	9,967	1,43,444	1,37,707 0 0	2,867	.....	Include teak, blackwood and junglewood.
Teak round pieces	5,776	29,630	5,776 0 0	1,883	14,815	2,888 0 0	.....	2,888	
Do. sleepers	301	374	240 0 0	2,326	2,530	1,623 0 0	1,383	.....	
Do. slabs...	13,936	9,385	770 0 0	8,094	6,875	564 0 0	.....	206	
Do. poles	1,163	6,247	1,990 0 0	2,464	10,412	3,316 0 0	1,326	.....	
Sitting boards	40	.....	6 0 0	35	.....	5 0 0	.....	1	
Miscellaneous scantlings	.....	12	10 0 0	.....	.....	.....	.....	10	
Round board	1	.....	0 5 0	1	.....	0 5 0	.....	.....	
Blackwood poles...	168	496	84 0 0	50	150	25 0 0	.....	59	
Jeráitiwood pieces	975	1,272	91 0 0	30	54	3 0 0	.....	88	
Teak ends pieces	2,247	2,730	55 0 0	2,247	2,730	55 0 0	.....	.....	
Total ...	.....	.....	1,43,862 5 0	.....	.....	1,46,186 5 0	5,576	3,252	
Southern Division of Kánara.									
Teakwood	480	9,653	14,479 0 0	.....	.....	.....	.....	14,479	
Junglewood	624	12,242	12,242 0 0	394	7,869	7,869 0 0	.....	4,373	
Sleepers	23	23	46 0 0	23	23	46 0 0	.....	.....	
Round sleeper pieces	3	5	2 0 0	3	5	2 0 0	.....	.....	
Total ...	.....	.....	26,769 0 0	.....	.....	7,917 0 0	.....	18,852	
Belgaum Division.									
Teak logs	53	538	387 0 0	.....	.....	.....	.....	387	
Do. poles...	110	461	37 0 0	11	21	8 0 0	.....	29	
Blackwood poles	.....	.....	.....	10	126	20 0 0	20	.....	
Junglewood logs	5	68	38 0 0	.....	.....	.....	.....	38	
Do. poles	10	53	1 0 0	134	1,165	267 0 0	266	.....	
Do. pieces	.....	.....	.....	20	268	50 0 0	50	.....	
eraiti do.	118	218	65 0 0	.....	.....	.....	.....	65	
Total ...	.....	.....	528 0 0	.....	.....	345 0 0	336	519	
Dhárwár Division.									
Teak rafters	11,196	56,763	13,000 0 0	1,267	4,286	1,200 0 0	.....	11,800	
Blackwood rafters	6	27	7 0 0	.....	.....	.....	.....	7	
Junglewood do.	55	196	60 0 0	29	137	24 0 0	.....	36	
Jeráiti pieces	1,079	2,080	390 0 0	16	12	3 0 0	.....	387	
Total ...	.....	.....	13,457 0 0	.....	.....	1,227 0 0	.....	12,230	
Kolába Division.									
Teak pieces of sorts	132	426	150 0 0	6,088	24,352	2,100 0 0	1,950	.....	
Total ...	.....	.....	150 0 0	.....	.....	2,100 0 0	1,950	.....	
Ratnágiri Division.									
Teak poles and pieces	56	137	18 0 0	.....	.....	.....	.....	18	
Total ...	.....	.....	18 0 0	.....	.....	.....	.....	18	
Total, Timber ...	.....	.....	6,58,488 5 0	.....	.....	5,35,422 5 0	23,933	45,999	
FIREWOOD.									
Central Division of Kánara.									
Firewood	.....	2,596	74 0 0	.....	2,510	71 0 0	.....	3	
Southern Division of Kánara.									
Firewood stacks	709	12,762	502 0 0	15	270	10 0		490	
Belgaum Division.									
Firewood stacks	6,167	92,544	8,647 0 0	1,341	44,259	1,880 0 0	.....	6,767	
Running Firewood	.....	18,203	1,835 0 0	.....	1,02,332	10,315 0 0	8,480	.....	
Lighting do.	.....	1,392	69 0 0	.....	.....	.....	.....	69	
Total ...	.....	.....	10,551 0 0	.....	.....	12,195 0 0	8,480	6,836	

FORM No. 60—*continued.*

Description of Timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.		Remarks.
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value.	In favour of the year.	Against the year.	
FIREWOOD—*continued.*									
Dhárwár Division.			Rs. a. p.			Rs. a. p.			
Firewood stacks...	1,574	28,332	1,574 0 0	1,807	32,526	1,807 0 0	233	.....	
Ratnágiri Division.									
Firewood ... ... Khandis	10	250	1 0 0	.....	.....	.....	.....	1	
Total, Firewood ...	.....	.....	12,702 0 0	.....	.....	14,085 0 0	8,713	7,330	
SANDALWOOD.									
Central Division of Kánara.									
Pieces	10	.....	20 0 0	.....	.....	.....	.....	20	
Billets and chips	.....	0 18 9½	75 0 0	2	0 0 15½	2 0 0	.....	73	
White wood	1	.....	5 0 0	.....	.....	.....	.....	5	
Total ...	.....	.....	100 0 0	.....	.....	2 0 0	.....	98	
Southern Division of Kánara.									
Sandalwood ... ... Khandis	.....	0 14 0	3 0 0	2	0 1 0	7 0 0	4	.....	
Do. oil ... ... Tolas	85½	.....	22 0 0	.....	.....	.....	.....	22	
Do. chips ... ... Carts	5	.....	22 0 0	.....	.....	.....	.....	22	
Total ...	.....	.....	47 0 0	.....	.....	7 0 0	4	44	
Dhárwár Divi									
wood roots	144	.....	120 0 0	60	.....	20 0 0	.....	100	
branches	23	.....	2 0 0	.....	.....	.....	.....	2	
billets	.....	.....	.....	63	.....	80 0 0	80	.....	
pieces	.....	.....	.....	26	.....	5 0 0	5	.....	
Total ...	.....	.....	122 0 0	.....	.....	105 0 0	85	102	
Total, Sandalwood ...	.....	.....	269 0 0	.....	.....	114 0 0	89	244	
BAMBOOS.									
Belgaum Division.									
... ...	50	.....	1 3 0	.....	.....	.....	.....	1 3 0	
MINOR PRODUCE.									
hern Division of Kánara.									
abollams ... ... Khandis	.....	34 0 0	674 0 0	.....	.....	.....	.....	674	
-divi seed ... ... Bags	18	.....	25 0 0	.....	.....	.....	.....	25	
Total ...	.....	.....	699 0 0	.....	.....	.....	.....	699	
Central Division of Kánara.									
s ... ... Bundles	134,993	.....	420 0 0	24,725	.....	76 0 0	.....	344	
kái ... ... Khandis	.....	1 16 11½	25 0 0	.....	0 2 2	1 0 0	.....	24	
Abollams ... ... Do.	.....	1 18 27	40 0 0	.....	1 19 0	40 0 0	.....	...	
Total ...	.....	.....	485 0 0	.....	.....	117 0 0	.....	368	
Southern Division of Kánara.									
... ... Khandis	.....	433 0 1	8,715 0 0	.....	4 14 8	86 0 0	.....	8,629	
... ... Do.	.....	40 7 21	800 0 0	.....	17 7 20	357 0 0	.....	443	
Total ...	.....	.....	9,515 0 0	.....	.....	443 0 0	.....	9,072	
Belgaum Division.									
llams ... ... Khandis	.....	140 2 0	2,509 0 0	.....	.....	.....	.....	2,509	
Dhárwár Division.									
... ... Bundles	143,055	.....	175 0 0	.....	.....	.....	.....	175	
Total, Minor Produce ...	.....	.....	13,383 0 0	.....	.....	550 0 0	.....	12,823	
Grand Total ...	.....	.....	584,843 8 0	.....	.....	550,181 0 0	31,735	66,397 3 0	

Net difference against the year, Rs. 34,662-3-0.

J. D. L. MacGREGOR,
Conservator of Forests, Southern Circle.

25th September 1893.

FORM No. 60 A.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Abstract showing the Value of Live and Dead Stock for the year 1892-93.

Description of Dead and Live Stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in Value.		Remarks.
	Number.	Value.	Number.	Value.	In favour of the year.	Against the year.	
Direction.		Rs.		Rs.	Rs.	Rs.	
Office tents	2	902	2	902	...	...	
Tools, plant and office furniture ...	...	339	...	423	84	...	
Total ...	...	1,241	...	1,325	84	...	
Northern Division of Kánara.							
Forest bungalow at Haliyál ...	1	2,700	1	2,700	...	...	
Range forest office at Haliyál ...	1	900	1	900	...	...	
Divisional forest office at Haliyál...	1	350	1	350	...	...	
Forest nákás	11	3,324	11	3,324	...	...	
Forest bungalow at Kadra ...	1	8,100	1	8,100	...	...	
Kodibág Depôt House ...	1	4,960	1	4,960	...	...	
Hill tent	1	350	1	350	...	...	
Tools, plant and office furniture ...	...	3,082	...	3,092	10	...	
Total ...	...	23,766	...	23,776	10	...	
Central Division of Kánara.							
Forest bungalows at Yellápur ..	2	3,050	2	3,050	...	...	
Workshop at Yellápur ...	1	114	1	114	...	...	
Rest-house at Kolikeri ...	1	908	1	908	...	...	
Náka houses	17	5,001	19	5,601	600	...	
Old Range office at Yellápur ...	1	250	1	250	...	...	
Rest-house at Ramanguli ...	1	150	1	150	...	...	
Tent	1	350	1	350	...	...	
Range forest office at Ankola ...	1	300	1	300	...	...	
Tools, plant and office furniture ...	...	4,292	...	4,442	150	...	
Buffaloes	208	6,779	52	1,680	...	5,099	37 buffaloes died, and the rest were sold.
Carts	100	3,198	40	1,400	...	1,798	The carts were disposed of along with the buffaloes.
Total ...	...	24,392	...	18,245	750	6,897	
Southern Division of Kánará.							
Divisional forest office at Sirsi ...	1	1,717	1	1,717	...	...	
Depôt House at Sirsi... ...	1	1,119	1	1,219	100	...	Rs. 100 were spent in renewing the roof of the Depôt House.
Forest nákás	21	6,102	21	6,102	..	...	
Rest-house at Bilki	1	300	1	300	...	...	
Office tent	1	350	1	350	...	...	
Tools, plant and office furniture ...	...	3,104	...	3,229	125	...	
Total ...	...	12,692	..	12,917	225	...	
Belgaum Division.							
Tent	1	300	1	300	...	...	
Rest-house	1	2,500	1	2,500	...	...	
Nákás	18	7,480	18	7,480	...	...	
Tools, plant and office furniture ...	...	3,942	...	4,208	266	...	
Total ...	...	14,222	...	14,488	266	...	

FORM No. 60 A—*continued.*

Description of Dead and Live Stock.	On hand at commencement of the year.		On hand at close of the year.		Difference in Value.		Remarks.
	Number.	Value.	Number.	Value.	In favour of the year.	Against the year.	
Dhárwár Division.		Rs.		Rs.	Rs.	Rs.	
Rest-house	1	800	1	800	...	...	
Watch-houses	9	2,700	9	2,700	...	...	
Tent	1	350	1	350	...	...	
Tools, plant and office furniture ...	...	3,023	...	3,339	316	...	
Depôt House at Hubli ...	...	...	1	999	999	...	
Total ...	...	6,873	...	8,188	1,315	...	
Bijápur Division.							
Office tent	1	[illegible]0	1	150	...	...	
Tools, plant and office furniture ...	...	[illegible]2	...	859	47	...	
Total ...	...	962	...	1,009	47	...	
Kolába Division.							
Hill tent, old	1	250	1	250	...	...	
Forest boat with fittings ...	1	300	1	300	...	...	
Swiss cottage tent	...	...	1	380	380	...	Newly purchased.
Tools, plant and office furniture ...	...	2,210	...	2,954	744	...	
Total ...	...	2,760	...	3,884	1,124	...	
Ratnágiri Division.							
Hill tent	1	200	1	200	...	...	
Tools, plant and office furniture ...	...	*467	...	468	1	...	*528 buttons "F. D." worth Rs. 45 were transferred to the Belgaum Division.
Total ...	...	667	...	668	1	...	
Working Plans Division.							
Tents	2	500	2	500	...	...	
Tools, plant and office furniture ...	...	2,721	...	2,940	219	...	
Total ...	...	3,221	...	3,440	219	...	
Grand Total ...	...	90,796	...	87,940	4,041	6,897	

J. L. L. MacGREGOR,
Conservator of Forests, Southern Circle.

Belgaum, 25th September 1893.

B 827—14 sc

FORM No. 61.

Forest Department, Bombay, Southern Circle.

Summary of Revenue and Expenditure of the different Divisions during the Forest year 1892-93, from April 1892 to 30th June 1893.

Budget Heads.	Direction.	North Kánara Division.	South Kánara Division.	Central Kánara Division.	Dhárwár Division.	Kolába Division.	Ratnágiri Division.	Belgaum Division.	Bijápur Division.	Forest Survey Charges.	Total for the Forest year 1892-93.
REVENUE.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
I.—Timber and other Produce removed from the Forests by Government Agency—											
a. Timber	.....	3,16,382 8 6	19,640 3 8	83,694 13 8	21,415 2 4	1,19,023 1 3	2,316 1 0	22,918 12 1	.....	.....	5,85,390 10 6
b. Firewood and Charcoal	.....	20,416 14 7	999 6 0	2,089 9 6	8,220 2 0	1,338 10 0	152 1 0	2,08,753 14 6	.....	.....	2,41,970 9 7
c. Bamboos	.....	5 8 0	.....	91 8 0	.....	.....	.....	1 3 0	.....	.....	98 3 0
d. Sandalwood	.....	.....	6,212 4 0	2,848 9 0	8,791 1 2	.....	.....	290 9 0	.....	.....	18,142 7 2
e. Grass and other minor produce	.....	12,107 4 5	38,844 4 7	5,457 9 2	321 7 5	0 14 3	21 0 0	45,412 9 11	.....	.....	1,02,165 1 9
Total I	.....	3,48,912 3 6	65,696 2 8	94,182 1 4	38,747 12 11	1,20,362 9 6	2,489 2 0	2,77,377 0 6	.....	.....	9,47,767 0 0
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—											
a. Timber	.....	21,434 12 4	15,485 6 7	13,581 5 0	815 2 3	34,153 5 0	7,952 3 8	2,525 11 2	520 9 0	.....	96,468 8 6
b. Firewood and Charcoal	.....	30,473 1 6	5,258 8 8	25,217 12 8	1,019 15 5	21,099 7 5	1,001 14 1	8,386 6 3	9,791 2 3	.....	1,02,248 4 3
c. Bamboos	.....	34,687 11 1	1,280 14 6	13,607 14 3	6,581 4 6	.....	1 2 0	8,898 4 2	10 2 6	.....	65,157 5 0
d. Grazing and fodder grass	.....	13,251 15 9	19,002 6 9	13,047 1 6	26,348 0 8	2,916 14 9	334 15 3	32,493 4 0	14,675 11 3	.....	1,22,100 5 10
e. Other minor produce	.....	2,106 3 8	6,888 8 6	5,690 6 0	3,199 2 9	1,835 12 0	184 0 8	4,733 6 10	3,489 1 2	.....	28,126 8 7
Total II	.....	1,01,953 11 4	47,915 13 0	71,234 8 2	37,963 9 7	60,035 7 11	9,474 3 8	57,037 0 5	28,486 10 1	.....	4,14,101 0 2
III.—Drift and Waif Wood and Confiscated Forest Produce	.....	82 12 2	386 10 9	4,999 5 6	162 6 9	867 0 3	116 12 7	291 0 5	62 7 0	.....	6,968 7 5
Total III	.....	82 12 2	386 10 9	4,999 5 6	162 6 9	867 0 3	116 12 7	291 0 5	62 7 0	.....	6,968 7 5
IV.—Revenue from Forests not managed by Government—											
a. Duty on foreign timber and other forest produce.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
b. Revenue from shared and private forests	.....	.....	.....	.....	.....	838 6 8	1 0 8	.....	.....	.....	839 7 4
Total IV	.....	.....	.....	.....	.....	838 6 8	1 0 8	.....	.....	.....	839 7 4
V.—Miscellaneous—											
a. Fines and forfeitures	.....	791 5 8	.....	3 15 3	33 9 11	3,490 9 2	28 0 0	250 0 0	200 14 0	.....	4,798 6 0
b. Refunds	69 3 6	102 6 8	177 1 6	62 9 5	80 7 5	331 3 9	2 0 0	6 3 7	126 10 2	.....	957 14 0
c. Other sources	2 4 0	598 5 4	1,082 6 7	925 10 0	407 15 8	1,112 9 7	442 15 11	4,305 11 0	61 5 6	.....	8,939 3 7
Total V	71 7 6	1,492 1 8	1,259 8 1	992 2 8	522 1 0	4,934 6 6	472 15 11	4,561 14 7	388 13 8	.....	14,695 7 7
Grand Toal Revenue	71 7 6	4,52,440 12 8	1,15,258 2 1	1,71,408 1 8	77,395 14 3	1,87,037 14 10	12,554 2 10	3,39,266 15 11	28,937 14 9	.....	13,84,371 6 6
EXPENDITURE.											
A.—Conservancy and Works.											
I.—Timber and other Produce removed from the Forests by Government Agency—											
a. Timber	.....	92,801 5 2	5,534 9 7	31,376 7 10	3,401 4 8	26,145 4 6	256 0 5	5,035 14 3	.....	.....	1,64,550 14 5
b. Firewood	.....	13,355 15 2	352 14 6	1,541 12 10	2,422 7 0	16 7 0	.....	94,701 5 5	276 0 0	.....	1,12,666 13 5
c. Bamboos	.....	2 4 0	.....	.....	.....	.....	.....	.....	.....	.....	2 4 0
d. Sandalwood	.....	0 10 0	805 14 0	277 13 9	596 13 5	.....	.....	18 8 0	.....	.....	1,699 11 2
e. Grass and other minor produce	.....	4,036 4 0	13,597 12 10	2,672 15 5	9 15 0	.....	10 3 2	9,075 8 2	.....	.....	29,403 10 7
Total A I	.....	1,10,196 6 4	20,291 2 5	35,869 1 10	6,430 8 1	26,161 11 6	266 3 7	1,08,831 8 10	276 0 0	.....	3,08,322 5 7

FORM No. 61—*continued.*

Budget Heads.	Direction.	North Kánara Division.	South Kánara Division.	Central Kánara Division.	Dhárwár Division.	Kolába Division.	Ratnágiri Division.	Belgaum Division.	Bijápur Division.	Forest Survey Charges.	Total for the Forest year 1892-93.
EXPENDITURE—*continued.*	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.—CONSERVANCY AND WORKS—*continued.*											
II.—Timber and other Produce removed from the Forests by Consumers or Purchasers	....	1,014 9 3	1,576 1 3	1,096 3 0	1,675 10 9	2,230 14 7	74 0 9	1,632 4 3	989 12 0	....	10,289 7 10
Total A II	....	1,014 9 3	1,576 1 3	1,096 3 0	1,675 10 9	2,230 14 7	74 0 9	1,632 4 3	989 12 0	....	10,289 7 10
III.—Drift and Waif Wood and confiscated Forest Produce	....	3 8 0	1 6	8 3 11	2 12 0	22 5 5	10 4 0	7 7 6	....	....	62 10 4
Total A III	....	3 8 0	8 1 6	8 3 11	2 12 0	22 5 5	10 4 0	7 7 6	....	....	62 10 4
IV.—Revenue from Forests not managed by Government—											
a. Duty on foreign timber and other forest produce	....	....	....	....	....	....	....	....	....	....	....
b. Revenue from shared and private forests	....	....	....	....	....	....	....	....	....	....	....
Total A IV	....	....	....	....	....	....	....	....	....	....	....
V—Rent of leased Forests and Payments to shareholders in Forests managed by Government	....	....	....	....	....	10,275 0 2	....	....	....	....	10,275 0 2
Total A V	....	....	....	....	....	10,275 0 2	....	....	....	....	10,275 0 2
VI.—Live Stock, Stores, Tools and Plant—											
a. Purchase of cattle	....	....	....	....	....	....	....	....	....	....	....
b. Feed and keep of cattle	....	6 10 0	....	9,918 3 7	....	....	....	521 12 9	....	....	10,446 10 4
c. Purchase of stores, tools and plant	....	314 3 11	70 7 1	644 2 5	312 14 10	1,117 4 4	29 6 0	206 14 4	....	....	2,695 4 11
Total A VI	....	320 13 11	70 7 1	10,562 6 0	312 14 10	1,117 4 4	29 6 0	728 11 1	....	....	13,141 15 3
VII.—Communications and Buildings—											
a. Roads and bridges	....	585 7 7	90 0 0	562 8 0	....	....	45 14 0	1,071 4 0	....	....	2,355 1 7
b. Buildings	....	418 4 0	416 13 11	1,648 14 3	1,140 9 9	96 4 0	7 2 9	550 0 8	14 10 6	....	4,292 11 10
c. Other Works	....	791 11 8	524 4 6	578 8 1	1 10 6	....	....	10 3 0	....	....	1,906 5 9
Total A VII	....	1,795 7 3	1,031 2 5	2,789 14 4	1,142 4 3	96 4 0	53 0 9	1,631 7 8	14 10 6	....	8,554 3 2
VIII.—Demarcation, Improvement, and Extension of Forests—											
a. Demarcation	....	522 5 10	2,034 14 3	5,577 8 3	3,037 0 3	596 7 2	....	....	8 0 0	....	12,376 3 9
b. Compensation for land and rights	....	....	510 0 0	....	1,451 4 0	....	....	....	....	....	1,961 4 0
c. Surveys	....	28,489 0 0	....	....	15 9 6	4,519 0 1	....	70 3 6	....	* 8,735 4 2	41,829 1 3
d. Working-plans	243 8 3	14,658 6 3	....	....	....	....	....	....	....	....	14,901 14 6
e. Sowing and planting	....	519 15 5	....	1,135 11 1	214 12 5	10 8 0	77 15 0	188 14 10	16 12 0	....	2,164 8 9
f. Protection from fire	....	15,387 15 3	1,126 4 0	7,047 15 3	628 14 6	77 8 0	....	2,303 12 0	499 12 7	....	27,072 1 7
g. Other Works	....	....	....	....	....	....	....	....	....	....	....
Total A VIII	243 8 3	59,577 10 9	3,671 2 3	13,761 2 7	5,947 8 8	5,203 7 3	77 15 0	2,562 14 4	524 8 7	8,735 4 2	1,00,305 1 10
IX.—Miscellaneous—											
a. Refunds	....	....	....	....	....	....	....	....	....	....	....
b. Law charges	....	....	80 11 6	....	....	....	....	81 11 2	....	....	162 6 8
c. Other charges	0 2 0	2,012 9 9	1,279 8 9	1,192 11 10	826 1 2	1,313 8 8	389 0 2	2,224 5 4	514 9 6	....	9,752 9 2
Total A IX	0 2 0	2,012 9 9	1,360 4 3	1,192 11 10	826 1 2	1,313 8 8	389 0 2	2,306 0 6	514 9 6	....	9,914 15 10
										*8,735 4 2	
										4,52,130 7 10	
Total A.—CONSERVANCY AND WORKS	243 10 3	1,74,921 1 3	28,008 5 2	65,279 11 6	16,337 11 9	40,420 7 11	899 14 3	1,17,700 1 2	2,319 8 7	*8,735 4 2	4,60,865 12 0

* Amounts of Forest Survey expenditure added as per the Superintendent's letter No. 193, dated 4th August 1893, made by the Superintendent, Bombay Forest Surveys. *Vide* copy sent to the Conservator with No. F.-13890, dated 14th August 1893, in April, May and June 1893 in Northern Division, Kánara (Rs. 5,189-6-8) and Kolába (Rs. 3,545-13-6).

B.—Establishment.												
I.—Salaries—												
a. Conservators	17,955 2 7	....	....	....	....	....	....	....	....	....	....	17,955 2 7
b. Superior Officers	2,400 0 0	41,463 9 6	9,783 12 10	9,061 8 10	13,445 15 4	9,969 13 5	3,427 6 9	9,887 0 8	5,125 15 4	....	....	1,04,564 2 8
c. Subordinate Forest and Depôt Establishments	7 7 5	21,763 12 9	13,924 7 7	15,343 6 2	15,739 5 6	34,866 0 6	8,923 10 8	27,860 0 6	8,577 8 1	....	....	1,46,948 9 2
d. Office Establishments	7,618 2 4	4,921 3 0	2,909 15 11	3,685 8 6	2,183 5 4	2,818 9 11	746 1 8	2,853 6 8	1,071 8 6	....	....	28,810 13 10
e. Deputation and Special Allowances	546 0 0	1,349 0 0	....	....	....	12 0 0	....	9 0 0	....	....	....	1,916 0 0
Total B I	28,526 12 4	69,497 9 3	26,617 4 4	28,090 7 6	31,368 10 2	47,609 7 10	13,097 3 1	40,609 7 10	14,777 13 11	....		3,00,194 12 3
II.—Travelling Allowances—												
a. Conservators	3,156 2 4	....	....	....	....	....	....	....	....	....	....	3,156 2 4
b. Superior Officers	720 0 0	8,342 9 0	1,974 3 1	1,898 0 0	2,204 10 0	2,534 6 5	1,347 4 4	2,310 0 0	1,457 13 8	....	....	22,788 14 6
c. Subordinate Forest and Depôt Establishments	....	1,412 8 5	643 5 4	939 8 8	1,455 3 6	1,481 13 9	784 15 1	1,869 3 10	300 0 0	....	....	8,826 10 7
d. Office Establishments	2,559 0 9	1,564 3 2	926 2 3	1,055 15 7	681 9 10	978 13 3	283 10 2	820 0 7	416 0 9	....	....	9,285 8 4
Total B II	6,435 3 1	11,319 4 7	3,513 10 8	3,893 8 3	4,341 7 4	4,995 1 5	2,415 13 7	4,939 4 5	2,173 14 5	....		44,057 3 9
III.—Contingencies—												
a. Stationery	1 9 3	166 1 4	525 0 1	445 9 6	147 1 9	469 0 4	182 14 5	358 2 4	172 14 0	....	....	2,468 5 0
b. Carriage of Tents and Records	723 7 4	524 4 3	303 10 6	459 7 10	209 3 6	375 8 6	181 4 6	214 8 6	109 9 6	....	....	3,101 0 5
c. Rents, Rates and Taxes	400 0 0	25 0 0	....	280 0 0	59 0 0	233 0 0	214 5 2	499 14 11	84 8 0	....	....	1,825 12 1
d. Pay of Police Guards	....	....	....	....	....	....	....	....	....	....	....	....
e. Official Postage	332 14 0	391 8 0	546 15 0	576 3 0	382 9 0	995 10 0	405 13 0	554 2 0	135 8 0	....	....	4,321 2 0
f. Sundries	522 5 7	220 2 4	369 9 11	204 8 4	167 15 4	254 15 3	123 6 9	317 8 3	128 9 1	....	....	2,308 0 10
Payments to Officers of other Provinces	....	....	....	....	....	....	....	....	....	....	....	....
Total B III	1,980 4 2	1,326 15 11	1,745 3 6	1,965 12 8	965 13 7	2,328 2 1	1,136 11 10	1,944 4 0	631 0 7	....		14,024 4 4
Total, B.—Establishment	36,942 3 7	82,143 13 9	31,906 2 6	33,949 12 5	36,675 15 1	54,932 11 4	16,649 12 6	47,493 0 3	17,582 12 11	....		3,58,276 4 4
												8,735 4 2
												8,10,406 12 2
Grand Total of Expenditure	37,195 13 10	2,57,064 15 0	59,914 7 8	99,229 7 11	53,013 10 10	1,01,353 3 3	17,549 10 9	1,65,193 1 5	19,902 5 6	8,735 4 2		8,19,142 0 4

A. F. COX,
Accountant General.

FORM No. 62.

FOREST DEPARTMENT, BOMBAY, SOUTHERN CIRCLE.

Annual Account Current for the Forest year 1892-93, extending from 1st April 1892 to 30th June 1893.

	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To Opening Balance...	.....	.. ...	By 1. Refunds and Drawbacks—Refunds—		
„ VIII. Assessed Taxes—Income Tax—			Divided Heads, Forest	.....	4,346 8 7
Deductions by Government from Salaries and Pensions.	.....	3,665 13 3	„ 11. Forest (as per Summary)	.....	8,10,406 12 2
„ IX. Forest (as per Summary)	.....	13,84,371 6 6	„ 19. Law and Justice—		
„ XII. Interest—			Jails, District Jails, Contingencies	.....	
Interest on Arrears of Revenue	.....	144 2 7	„ Revenue Deposits (Forests)	.....	43,628 7 0
„ XXIII. Stationery and Printing—			„ Cheques and Bills (Forests Cheque cancelled)	.....	5,427 8 6
Stationery Receipts—			„ Advances Recoverable—		
Sale-proceeds of Stationery Boxes	.....		Forest Advances	5,18,357 2 4	
Other Press Receipts—			Tentage Advances	.....	
Government Central Press...	3 14 9		Objection Book Advances	2,689 0 0	
		3 14 9			5,21,046 2 4
„ XXV. Miscellaneous (Provincial)—			„ Cash Recoveries	.....	9,353 6 5
Sale-proceeds of old Stores and Materials	.....	6 7 3			
„ Revenue Deposits (Forest)	.....	79,344 14 1	„ Forest Remittances—		
„ Cheques and Bills (Departmental cheques), Forest	.....	8,37,476 11 11	Remittances to Treasuries	11,78,831 10 2	
„ Advances Recoverable—			Inter-divisional Transfers	15,286 4 0	
Forest Advances	4,95,894 6 5		Inter-departmental Transfers	157 10 10	
Tentage Advances	120 0 0				11,94,275 9 0
Objection Book Advances	3,776 13 5		„ Accounts Current—		
		4,99,791 3 10	„ Account between Bombay and Military, Bombay—		
„ Cash Recoveries	.....	9,353 6 5	IV. Items adjustable by Military	.....	6,000 0 0
„ Forest Remittances to Treasuries—			„ Account between Bombay and Public Works Department, Bombay—		
Remittances to Treasuries	26 0 5		(Ordinary Branches)—		
Inter-divisional Transfers	48,576 6 0		IV. Items adjustable by Public Works Department	.....	2,479 7 8
Inter-departmental Transfers	385 15 10		„ Account between Bombay and Public Works Department—		
		48,988 6 3	(Railway Branch)—		
„ Bombay Uncovenanted Service Family Pension Fund—			Southern Marátha Railway—		
Widows' Branch	.....	437 0 6	IV. Items adjustable by Public Works Department	.....	2,19,789 2 3
„ Account between India and Bombay—			„ Account between Bombay and Marine ..		
III. Items adjustable by India—			Marine IV.—Miscellaneous	.....	47,254 13 5
Bengal Military Fund	.....				
Bengal Military Orphan Fund	.....				
Bengal Uncovenanted Service Family Pension Fund	223 2 6				
		223 2 6			
„ Account between Bombay and Public Works Department, Bombay—					
IV. Payments into Treasuries by Civil Officers on account of Public Works Department...	.....	685 9 8	Closing Balance ...	.....	484 6 2
Total ...	.....	28,64,492 3 6	Total ...	.....	28,64,492 3 6

No. $\frac{F.}{16171}$

Forwarded to the Conservator of Forests, Southern Circle, under Section 267 of the Forest Department Code.

Accountant General's Office,
Bombay, 8th September 1893.

A. F. COX,
Accountant General.

ANNUAL FORM No. 63.

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ANNUAL FORM No. 63

Forest Department, Bombay, Southern Circle.

Revenue received and Outstandings on account of Revenue during 1892-93.

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Northern Division of Kánara.	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	1,01,772 8 6	3,13,651 6 6	4,15,423 15 0	3,16,382 8 6	99,041 6 6	
	b. Firewood and charcoal	3 4 0	21,870 0 6	21,873 4 6	20,416 14 7	1,456 5 11	
	c. Bamboos	.....	5 8 0	5 8 0	5 8 0	.....	
	d. Sandalwood	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ...	58 5 0	12,048 15 5	12,107 4 5	12,107 4 5	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	181 5 10	21,434 12 4	21,616 2 2	21,434 12 4	181 5 10	
	b. Firewood and charcoal	3,801 8 1	30,473 1 6	34,274 9 7	30,473 1 6	3,801 8 1	
	c. Bamboos	.....	34,687 11 1	34,687 11 1	34,687 11 1	.....	
	d. Grazing and fodder grass ...	.....	13,251 15 9	13,251 15 9	13,251 15 9	.....	
	e. Other minor produce	316 10 8	1,789 8 0	2,106 2 8	2,106 2 8	.....	
	III.—Drift and Waif Wood and Confiscated Forest Produce	5 12 0	77 0 2	82 12 2	82 12 2	.....	
	Total, Northern Division of Kánara ...	1,06,139 6 1	4,49,289 15 3	5,55,429 5 4	4,50,948 11 0	1,04,480 10 4	
Central Division of Kánara ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	26,574 15 11	81,528 10 4	1,08,103 10 3	83,694 13 8	24,408 12 7	
	b. Firewood and charcoal	13 9 6	2,076 0 0	2,089 9 6	2,089 9 6	.....	
	c. Bamboos	.....	91 8 0	91 8 0	91 8 0	.....	
	d. Sandalwood	9 8 0	2,839 1 0	2,848 9 0	2,848 9 0	.....	
	e. Grass and other minor produce ...	0 15 9	5,466 6 5	5,467 6 2	5,457 9 2	9 13 0	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	2,623 0 5	13,836 7 8	16,459 8 1	13,581 5 9	2,878 2 4	
	b. Firewood and charcoal	16,012 10 10	20,534 8 7	36,547 3 5	25,217 12 8	11,329 6 9	
	c. Bamboos	3 0 0	13,694 14 3	13,697 14 3	13,697 14 3	.....	
	d. Grazing and fodder grass ...	.....	13,047 1 6	13,047 1 6	13,047 1 6	.....	
	e. Other minor produce	480 4 0	6,013 6 0	6,493 10 0	5,690 6 0	803 4 0	

	III.—Drift and Waif Wood and Confiscated Forest Produce	259	1	1	4,740	4	5	4,999	5	6	4,999	5	6	.....	
	Total, Central Division of Kánara ...	45,977	1	6	1,63,868	4	2	2,09,845	5	8	1,70,415	15	0	39,429	6 8
Southern Division of Kánara.	*I.—Timber and other Produce removed from the Forests by Government Agency—*														
	a. Timber	5,485	12	0	28,309	7	8	33,795	3	8	19,640	3	8	14,155	0 0
	b. Firewood and charcoal	.....			999	6	0	999	6	0	999	6	0	.....	
	c. Bamboos	.....			.....			.....			.....			.....	
	d. Sandalwood	.....			6,212	4	0	6,212	4	0	6,212	4	0	.....	
	e. Grass and other minor produce ...	.....			38,844	4	7	38,844	4	7	38,844	4	7	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—														
	a. Timber	736	1	9	14,760	12	10	15,496	14	7	15,485	6	7	11	8 0
	b. Firewood and charcoal	.....			14,776	0	8	14,776	0	8	5,258	8	8	9,517	8 0
	c. Bamboos	.....			1,280	14	6	1,280	14	6	1,280	14	6	.....	
	d. Grazing and fodder grass ...	.....			19,002	6	9	19,002	6	9	19,002	6	9	.....	
	e. Other minor produce	159	6	0	6,780	14	6	6,940	4	6	6,888	8	6	51	12 0
	III—Drift and Waif Wood and Confiscated Forest Produce	.....			386	10	9	386	10	9	386	10	9	.....	
	Total, Southern Division of Kánara ...	6,381	3	9	1,31,353	2	3	1,37,734	6	0	1,13,998	10	0	23,735	12 0
Belgaum Division ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*														
	a. Timber	936	14	10	22,157	13	3	23,094	12	1	22,918	12	1	176	0 0
	b. Firewood and charcoal	.....			2,08,753	14	6	2,08,753	14	6	2,08,753	14	6	.....	
	c. Bamboos	.....			1	3	0	1	3	0	1	3	0	.....	
	d. Sandalwood	.....			290	9	0	290	9	0	290	9	0	.....	
	e. Grass and other minor produce ...	.....			45,412	9	11	45,412	9	11	45,412	9	11	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—														
	a. Timber	.....			2,525	11	2	2,525	11	2	2,525	11	2	.....	
	b. Firewood and charcoal	.....			8,386	6	3	8,386	6	3	8,386	6	3	.....	
	c. Bamboos	.....			8,898	4	2	8,898	4	2	8,898	4	2	.....	
	d. Grazing and fodder grass ...	.....			32,493	4	0	32,493	4	0	32,493	4	0	.....	
	e. Other minor produce	.....			4,733	6	10	4,733	6	10	4,733	6	10	.....	
	III.—Drift and Waif Wood and Confiscated Forest Produce	.....			291	0	5	291	0	5	291	0	5	.....	
	V. c. Other sources	.....			6,605	11	0	6,605	11	0	4,305	11	0	2,300	0 0
	Total, Belgaum Division ...	936	14	10	3,40,549	13	6	3,41,486	12	4	3,39,010	12	4	2,476	0 0

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Dhárwár Division ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	2,782 0 0	21,261 6 4	24,043 6 4	21,415 2 4	2,628 4 0	
	b. Firewood and charcoal	26 4 0	8,218 14 0	8,245 2 0	8,220 2 0	25 0 0	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood	.....	8,791 1 2	8,791 1 2	8,791 1 2	.....	
	e. Grass and other minor produce ...	25 0 0	296 7 5	321 7 5	321 7 5	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	.....	815 2 3	815 2 3	815 2 3	.....	
	b. Firewood and charcoal	.....	1,019 15 5	1,019 15 5	1,019 15 5	.....	
	c. Bamboos	.....	6,581 4 6	6,581 4 6	6,581 4 6	.....	
	d. Grazing and fodder grass ...	.....	26,348 0 8	26,348 0 8	26,348 0 8	.....	
	e. Other minor produce	.....	3,199 2 9	3,199 2 9	3,199 2 9	.....	
	III.—Drift and Waif Wood and Confiscated Forest Produce	.....	162 6 9	162 6 9	162 6 9	.....	
	Total, Dhárwár Division ...	2,833 4 0	76,693 13 3	79,527 1 3	76,873 13 3	2,653 4 0	
Bijápur Division ...	*I.—Timber and other Produce removed from the Forests by Government Agency—*						
	a. Timber	.....	.....	.....	.....	.....	
	b. Firewood and charcoal	.....	.....	.....	.....	.....	
	c. Bamboos	.....	.....	.....	.....	.....	
	d. Sandalwood	.....	.....	.....	.....	.....	
	e. Grass and other minor produce ...	.....	.....	.....	.....	.....	
	II.—Timber and other Produce removed from the Forests by Consumers or purchasers—						
	a. Timber	.....	520 9 0	520 9 0	520 9 0	.....	
	b. Firewood and charcoal	.....	9,791 2 3	9,791 2 3	9,791 2 3	.....	
	c. Bamboos	.....	10 2 6	10 2 6	10 2 6	.....	
	d. Grazing and fodder grass ...	.....	14,675 11 2	14,675 11 2	14,675 11 2	.....	
	e. Other minor produce	.....	3,489 1 2	3,489 1 2	3,489 1 2	.....	

	III.—Drift and Waif Wood and Confiscated Forest Produce	.....	62 7 0	62 7 0	62 7 0	.....
	Total, Bijápur Division ...	.....	28,549 1 1	28,549 1 1	28,549 1 1	.....
Kolába Division.	*I.—Timber and other Produce removed from the Forests by Government Agency—*					
	a. Timber	.....	1,19,626 13 3	1,19,626 13 3	1,19,023 1 3	603 12 0
	b. Firewood and charcoal	.....	1,338 10 0	1,338 10 0	1,338 10 0	.....
	c. Bamboos	.....	.....	.....	.....	.....
	d. Sandalwood...	.....	.....	.....	.....	.....
	e. Grass and other minor produce ...	.....	0 14 3	0 14 3	0 14 3	.....
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
	a. Timber	4,590 0 0	30,887 1 9	35,477 1 9	34,153 5 9	1,323 12 0
	b. Firewood and charcoal	2,937 8 0	19,661 15 5	22,599 7 5	21,099 7 5	1,500 0 0
	c. Bamboos	.....	.....	.....	.....	.....
	d. Grazing and fodder grass ...	36 4 0	3,040 6 9	3,076 10 9	2,946 14 9	129 12 0
	e. Other minor produce	.....	2,863 4 0	2,863 4 0	1,835 12 0	1,027 8 0
	III.—Drift and Waif Wood and Confiscated Forest Produce	375 0 0	492 0 3	867 0 3	867 0 3	.....
	Total, Kolába Division ...	7,938 12 0	1,77,911 1 8	1,85,849 13 8	1,81,265 1 8	4,584 12 0
Ratnágiri Division	*I.—Timber and other Produce removed from the Forests by Government Agency—*					
	a. Timber	.....	2,316 1 0	2,316 1 0	2,316 1 0	.....
	b. Firewood and charcoal	.....	152 1 0	152 1 0	152 1 0	.....
	c. Bamboos	.....	.....	.....	.....	.....
	d. Sandalwood	.....	.....	.....	.....	.....
	e. Grass and other minor produce ...	.....	21 0 0	21 0 0	21 0 0	.....
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—					
	a. Timber	.....	8,494 6 8	8,494 6 8	7,952 3 8	542 3 0
	b. Firewood and charcoal	.....	1,641 2 5	1,641 2 5	1,001 14 1	639 4 4
	c. Bamboos	.....	1 2 0	1 2 0	1 2 0	.....
	d. Grazing and fodder grass ...	.....	334 15 3	334 15 3	334 15 3	.....
	e. Other minor produce	.....	184 0 8	184 0 8	184 0 8	.....
	III.—Drift and Waif Wood and Confiscated Forest Produce	.....	116 12 7	116 12 7	116 12 7	.....
	Total, Ratnágiri Division ...	.....	13,261 9 7	13,261 9 7	12,080 2 3	1,181 7 4

ANNUAL FORM No. 63—*concluded.*

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Total of the Circle ...	*I.—Timber and other Produce removed from the Forest by Government Agency—*						
	a. Timber	1,37,552 3 3	5,88,851 10 4	7,26,403 13 7	5,85,390 10 6	1,41,013 3 1	
	b. Firewood and charcoal	43 1 6	2,43,408 14 0	2,43,451 15 6	2,41,970 9 7	1,481 5 11	
	c. Bamboos	.....	98 3 0	98 3 0	98 3 0	.....	
	d. Sandalwood	9 8 0	18,132 15 2	18,142 7 2	18,142 7 2	.....	
	e. Grass and other minor produce ...	84 4 9	1,02,090 10 0	1,02,174 14 9	1,02,165 1 9	9 13 0	
	II.—Timber and other Produce removed from the Forests by Consumers or Purchasers—						
	a. Timber	8,130 8 0	93,274 15 8	1,01,405 7 8	96,468 8 6	4,936 15 2	
	b. Firewood and charcoal	22,751 10 11	1,06,284 4 6	1,29,035 15 5	1,02,248 4 3	26,787 11 2	
	c. Bamboos	3 0 0	65,154 5 0	65,157 5 0	65,157 5 0	.....	
	d. Grazing and fodder grass ...	36 4 0	1,22,193 13 10	1,22,230 1 10	1,22,100 5 10	129 12 0	
	e. Other minor produce	956 4 8	29,052 11 11	30,009 0 7	28,126 8 7	1,882 8 0	
	III.—Drift and Waif Wood and Confiscated Forests Produce	639 13 1	6,328 10 4	6,968 7 5	6,968 7 5	.....	
	**V. c.* Other sources	.....	11,239 3 7	11,239 3 7	8,939 3 7	2,300 0 0	*As there are no outstandings under *V.c.* in any of the Divisions, except Belgaum, the revenue under this head is not shown in detail against other Divisions.
	Grand Total ...	1,70,206 10 2	13,86,110 5 4	15,56,316 15 6	13,77,775 11 2	1,78,541 4 4	

Note.—The revenue under Budget Heads IV. and V. *a.* and *b.* is Rs. 839-7-4, and Rs. 5,756-4-0, respectively. The total amount realized during the year is Rs. 13,84,371-6-6. (*Vide* Form No. 61.)

Belgaum, 25th September 1893.

J. L. L. MacGREGOR,
Conservator of Forests, Southern Circle.

FORM No. 64.

Forest Department, Bombay, Southern Circle.

Outstandings and Liabilities on account of Contractors and Disbursers for the Forest year 1892-93, from 1st April 1892 to 30th June 1893.

Division.	Department Debtor.			Department Creditor.			Balance due.		Remarks.
	At commencement of year.	Recoveries in Cash and Value of supplies and work done during year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Liabilities).	
Contractors.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
North Kánara ...	.....	31,843 5 1	31,843 5 1	1,227 5 1	35,116 0 0	36,343 5 1	4,500 0 0	...	
South Kánara ...	.....	2,000 0 0	2,000 0 0	.....	4,000 0 0	4,000 0 0	2,000 0 0	...	
Central Kánara ...	.....	4,602 10 8	4,602 10 8	5,643 10 11	6,952 0 0	12,595 10 11	7,993 0 3	...	
Dhárwár	.....	1,744 3 0	1,744 3 0	699 8 4	1,100 0 0	1,799 8 4	55 5 4	...	
Kolába	.....	10,834 0 0	10,834 0 0	100 0 0	10,734 0 0	10,834 0 0	.....	...	
Belgaum	.....	57,275 1 7	57,275 1 7	81 5 7	63,718 12 0	63,800 1 7	6,525 0 0	...	
Total, Contractors ...	.....	1,08,299 4 4	1,08,299 4 4	7,751 13 11	1,21,620 12 0	1,29,372 9 11	21,073 5 7	...	
Disbursers.									
North Kánara ...	.....	1,09,747 13 11	1,09,747 13 11	217 10 2	1,11,623 15 9	1,11,841 9 11	2,093 12 0	...	
South Kánara ...	.....	43,579 6 6	43,579 6 6	3,806 7 5	44,585 11 6	48,392 2 11	4,812 12 5	...	
Central Kánara ...	.....	62,224 14 8	62,224 14 8	1,499 9 6	63,438 6 0	64,937 15 6	2,713 0 10	...	
Dhárwár	.....	24,954 13 10	24,954 13 10	.....	25,681 3 3	25,681 3 3	726 5 5	...	
Kolába	.....	72,411 5 1	72,411 5 1	691 5 1	76,023 7 8	76,714 12 9	4,303 7 8	...	
Ratnágiri	.....	11,762 15 1	11,762 15 1	.....	11,938 14 9	11,938 14 9	175 15 8	...	
Belgaum	.....	53,329 1 5	53,329 1 5	1,428 0 0	53,806 11 5	55,234 11 5	1,905 10 0	...	
Bijápur	0 8 0	9,584 11 7	9,585 3 7	.....	9,638 0 0	9,638 0 0	53 4 5	0 8 0	
Total, Disbursers ...	0 8 0	3,87,595 2 1	3,87,595 10 1	7,643 0 2	3,96,736 6 4	4,04,379 6 6	16,784 4 5	0 8 0	
Grand Total ...	0 8 0	4,95,894 6 5	4,95,894 14 5	15,394 14 1	5,18,357 2 4	5,33,752 0 5	37,857 10 0	0 8 0	

No. $\frac{F}{16172}$.

Forwarded to the Conservator of Forests, Southern Circle, under Section 267 of the Forest Department Code.

Accountant General's Office,
Bombay, 8th September 1893.

A. F. COX,
Accountant General.

ANNUAL FORM No. 65.

Forest Department, Bombay, Southern Circle.

Financial results of the year 1892-93.

Division.	Timber and other Produce removed from the Forests by Government Agency.		Other Revenue.		Formation, protection and improvement of Forests.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Direction...	...	...	71	...	37,186	71	37,186	
Northern Division of Kánara	3,48,995	1,54,281	1,03,446	5,793	1,02,180	4,52,441	2,62,254	
Central Division of Kánara	99,181	46,745	72,227	20,505	31,979	1,71,408	99,229	
Southern Division of Kánara	65,793	28,620	49,465	18,959	12,335	1,15,258	59,914	
Belgaum Division ...	2,77,377	1,33,485	61,890	16,363	15,345	3,39,267	1,65,193	
Dhárwár do. ...	38,748	31,020	38,648	9,831	12,163	77,396	53,014	
Bijápur do. ...	...	276	28,938	5,914	13,713	28,938	19,903	
Kolába do. ...	1,20,363	51,299	66,675	17,385	36,215	1,87,038	1,04,899	
Ratnágiri do. ...	2,606	4,439	9,948	4,625	8,486	12,554	17,550	
Total ...	9,53,063	4,50,165	4,31,308	99,375	2,69,602	13,84,371	8,19,142	

J. L. L. MacGREGOR,
Conservator of Forests, Southern Circle.

Belgaum, 25th September 1893.

No. 5643 of 1893.

Revenue Department.

Belgaum, 28th December 1893.

Forwarded to Government.

2. This is the first report for the special forest year prescribed in Government Resolution No. 5506 dated the 6th July 1892, and in accordance with the orders given in that Resolution the information furnished in the report relates to the 15 months between April 1, 1892 and June 30, 1893.

Forest area.

3. The changes which have occurred in the forest area of the Southern Circle during the period under report are as follows:—

Area on 1st April 1892.				Total Forest Area.		Added during the year.				Excluded or transferred to other heads.				Area on 30th June 1893.				Total Forest Area.	
Reserved.		Protected.				Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.			
Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.	Sq. m.	Acres.
1,977	12	3,404	258	5,381	270	0	504	1	339	0	128	0	421	1,977	388	3,405	176	5,382	564

The aggregate forest area has therefore practically remained unaltered, the addition being only a few hundred acres, mainly in protected forest.

Work done by the Forest Settlement Officers.

4. Although there are three Forest Settlement Officers now working in the Southern Circle, the subjoined table exhibits the work done by two of them only, as immediately on the appointment of Mr. Sheppard, Mr. Wingate proceeded on furlough and did not return to his duties until the 31st May 1893.

Name of Forest Settlement Officer.	Táluka.	No. of Villages.	Area for which the field work has been completed.	Report submitted or not.
			Sq. m.	
Mr. Sheppard ...	Kárwár ...	7	23·59	No report has yet been submitted.
	Sirsi ...	168	431·28	
Mr. Knight ...	Dhárwár ...	...	111·8	Mr. Knight's report on the Dhárwár Táluka dealing with a forest area of 22 square miles has been disposed of by Government since the date of the report. (Government Resolution No. 7837 of 25th October 1893.)
	Gadag ...			
	Karajgi ...			
	Bankápur.			

Mr. Knight's duties as Forest Settlement Officer were on two occasions interrupted, during the period under review, owing to an accident in one instance and to his being employed on special duty in the other, and since the date of the report he has had twice to take up the acting appointment of Collector. The Commissioner trusts that Mr. Knight will now be able to complete his task in respect of forest settlement without being again diverted to other work.

5. Since the close of the year, Government have issued their orders on the forest settlement reports of the Kumta, Khánápur and Dhárwár tálukas. In the Bijápur District some inquiry and settlement work will have to be carried out on the receipt of the orders of Government on the proposals submitted to them with this office No. 4992 dated the 8th ultimo, but it will not require the services of a special Forest Settlement Officer.

6. The work that remains to be done either in regard to old forest areas notified under Section 34 of the Forest Act or to the conversion of Protected into Reserved Forest is given below:—

	Sq.m.	Acres.
Kánara	2,004	22
Kolába	11	353
Dhárwár...	266	286

Excluding the charges on account of the salaries and allowances of the Forest Settlement Officers, the cost per square mile of settlements effected during the year under report was Rs. 66·3. The Conservator of Forests, S. C., has not furnished any explanation of the great variation between this sum and the average cost of settlement up to date, which amounts to Rs. 133·6 per square mile.

7. The papers regarding the settlement of the betta lands to which the Conservator of Forests, S. C., has made a reference in paragraph 37 of his report, were returned for reconsideration and further report to the Collector of Kánara, who has promised to submit his reply on the whole question immediately after the Christmas holidays.

Demarcation.

8. The work accomplished by the demarcation establishment employed under the Forest Settlement Officer in Kánara is described in paragraphs 38 to 41 of the Conservator's report. The report does not state what was the strength of this establishment and how the quantity of work done in the year compares with that done in the previous year, and, lastly, whether the outturn of the work in the year under report was adequate.

Work done by the Topographical Survey.

9. The figures given in paragraphs 43 and 44 do not tally with those shown in Form No. 49, probably for the reason that the latter refer to the period from 1st October 1892 to 30th September 1893 (*vide* remark in the last column of Form 49). The cost per square mile of completed area in Kánara on a scale of 4 inches to one mile was Rs. 85. In Kolába the average cost per square mile of the area surveyed is stated to have been Rs. 205 against Rs. 112 in 1891-92. The falling off in the results of 1892-93 is attributed partly to sickness amongst the surveying establishment and partly to the absence of supervision over detail work owing to the deputation of the supervising officer on triangulation work in Kánara. The topographical survey was commenced in 1886. The area surveyed since that year is approximately 1,442 square miles, leaving an area of 3,910 square miles still to be surveyed. Mr. MacGregor estimates that the establishment at its present strength will take thirteen years to complete the work yet remaining to be done in the Southern Circle, and that the cost will be about four lákhs of rupees.

Chapter II.

10. The following table shows the progress made during the year in the preparation of working plans:—

Total Forest Area.	Areas for which Working Plans have already been completed.	Areas for which Working Plans were taken in hand during the year.	Areas for which Working Plans have still to be taken in hand.
Sq. m.	Sq. m.	Sq. m.	Sq. m.
1,189	122	83	984

Except in respect of the forest areas of Khálápur and Karjat, for which the working plans were prepared before their transfer to the Southern Circle, no working plans are yet ready for any other part of the Reserved Forest in the Southern Circle. The total area for which data for the preparation of working plans were collected during the year was 20,100·3 acres and the total cost incurred amounted to Rs. 33,991, the average cost per acre being Rs. 1-11-$\frac{1}{2}$. The average cost per acre of working plans hitherto completed is given in the remarks column of Form No. 50 as 12$\frac{5}{6}$ annas.

Communications and buildings.

11. No works of any great importance were executed during the year. The total outlay on communications amounted to Rs. 2,353 and on buildings to Rs. 6,268.

Prosecutions for breaches of the Forest Act and rules.

12. The total number of cases taken into Court during the year was 589 against 249 in 1891-92. In addition to the reasons assigned in paragraphs 71 to 81 for the large increase in the number of cases thus dealt with, it may be noticed that the figures for 1892-93 are for 15 months and not for 12 months. The only division in which the number of prosecutions for breaches of the Forest Act and rules has decreased is the Central Division of Kánara. In all other divisions there is a greater or less increase. The rise in the Belgaum District is nearly 300 per cent., and is attributed to illicit grazing in the Khánápur and Gokák ranges, the offenders mostly belonging to the class of professional graziers. A material increase is also noticeable in the Northern and Southern Divisions of Kánara. In the former, of the 119 cases, 101 arose from the illicit removal of firewood from the closed area within a radius of five miles from Kárwár. In the Southern Division the increase of 83 cases was caused by the illicit removal of 'soppu' (green leaves, &c.) for manure. The increase may be regrettable, but for it the offenders are solely to blame. When cautions, reprimands and minor penalties prove ineffectual, and rules and orders are systematically disregarded, as appears to have been the case in parts of Belgaum and Kánara, the Forest Officers have no option left to them, if conservancy is to be real and not a farce, but to resort to more severe measures and to prosecute the guilty parties in the Criminal Courts.

13. The total number of forest offences committed was 1,498 as contrasted with 1,052 in the preceding year, displaying a material increase. Of these offences 909 cases were compounded, and the remainder (589) were, as already stated, taken into Court. In the Northern and Southern Divisions of Kánara the number of cases taken into Court considerably exceeds the corresponding figures of the previous year. On the other hand, the number of cases compounded in Belgaum is more than double that in the preceding year.

14. The subjoined table shows how the offences were dealt with :—

CASES OF THE YEAR 1892-93.

Pending in Court on 1st April 1892.	Taken into Court during the year.	Total.	Disposed of by Magistrates during the year.			Pending in Court on 30th June 1893.	Percentage of failures.		Remarks.
			Convictions.	Acquittals.	Total.		1891-92.	1892-93.	
8	589	*597	438	137	575	12	22	24	* 10 cases were withdrawn, as the accused died.

In Bijápur, where forests exist mainly only in name, the breaches of the law were naturally few, and in 14 of the 15 cases the offenders were successfully prosecuted. In the Southern Division of Kánara and Belgaum, however, the failures were comparatively small. In the Northern Division of Kánara, 45 cases were dismissed by the Magistrate on the ground that they were "first offences," and this fact must be taken as an explanation of the comparatively large percentage of failures.

Cases dealt with under Section 67 of the Act.

15. The table printed at paragraph 83 of Mr. MacGregor's report gives the necessary information regarding the number of cases dealt with under Section 67 of the Forest Act. The increase occurred in the districts of Belgaum and Bijápur and the Northern Division of Kánara, that in Belgaum being most marked. The Divisional Forest Officer attributes it to greater activity on the part of the protective establishment. The opinion, if any, expressed by the Collector on the subject does not appear in the report, but a rise in the number

of cases from 210 to 475 is certainly one which the Collector of the district was bound to explain in forwarding the report of the Divisional Forest Officer. The Commissioner, however, would remark that, as far as he is able to judge, Mr. Murray is not an officer who can fairly be accused of undue harshness to the villagers, and that his action in dealing with them is characterised by much moderation and by full consideration of their reasonable wants and claims.

As regards the increase of 34 cases in Bijápur, Mr. Monteath remarks that there is no ground for complaint with regard either to the institution of prosecutions or the working of Section 67 of the Act.

Protection from fire.

16. The subjoined table exhibits the results of the measures adopted for the protection of forests from fire :—

Year.	Area in Square Miles.			Proportion of failures to Area attempted.	Cost per Square Mile protected.	Percentage of area under fire protection to total area of Reserves.
	Attempted.	Failures.	Protected.			
					Rs.	
1892-93, *i. e.* from April 1, 1892 to 30th June 1893.	1,238	19	1,219	1·53	19·34	62·6
1891-92	1,046	25	1,021	2·39	16·14	53·2
	+192	—6	+198	—·86	+3·20	+9·4

There is a satisfactory increase in the area under protection from fire, and the attempts of the Forest Department were attended with success to a great extent, in as much as the area actually protected has increased from 1,021 to 1,219 square miles. The cost per square mile of protected area has simultaneously risen from 16·14 to 19·34 rupees.

There was an increase of 192 square miles in the area attempted, coupled with a decrease in failures from 25 to 19 in 1892-93. The results of the measures adopted in the districts of Belgaum, Kolába and Ratnágiri are described by the Conservator of Forests as very satisfactory. As might be expected, in many cases of fires in the three divisions of Kánara and in Dhárwár the offenders could not be discovered.

Cattle impounded.

17. The number of cattle impounded was 6,765 against 8,726 in the preceding year, the decrease occurring mainly in Dhárwár and Bijápur, where no cattle were impounded.

Grazing.

18. Two sets of rules for the regulation of grazing obtain in the Southern Circle: one applies exclusively to Kánara and the other to the remaining five districts. Owing to the introduction of the new fee system the revenue accruing from grazing has increased from Rs. 91,487 in 1891-92 to Rs. 1,07,944 in 1892-93. The Conservator complains that the condition of the sparsely covered rocky hills of Bijápur cannot be improved without enforcing strict closure periodically, and in this opinion the Commissioner concurs after seeing a considerable area of the scrub jungle called forest in Bijápur.

Minor produce.

19. The receipts from minor-products decreased from Rs. 1,65,012 in 1891-92 to Rs. 1,30,292 in 1892-93, owing to the very poor outturn of hirdas (myrabolams), which is the principal article of minor produce in Kánara and Belgaum. The quantity of hirdas collected during the period under report was only 97,058 khandis as compared with 1,35,729 khandis during the previous year.

Chapter III.

20. The following table extracted from Form No. 57 compares the outturn of timber and fuel during the year 1892-93 with that during the year 1891-92 :—

Description of Timber.	Year.	Quantity.
I.—Timber in the rough logs ...	1892-93 ...	Cubic feet 326,364.
	1891-92 ...	Do. 309,974.
II.—Timber in the rough poles ...	1892-93 ...	Do. 850,204.
	1891-92 ...	Do. 891,643.
III.—Sawn or square timber ...	1892-93 ...	Do. 416,433.
	1891-92 ...	Do. 314,093.
IV.—Miscellaneous	1892-93 ...	Do. 81,876.
	1891-92 ...	Do. 161,340.
V.—Fuel	1892-93 ...	Do. 5,499,725.
	1891-92 ...	Do. 6,243,815.
VI.—Sandalwood	1892-93 ...	Khandis 76-0-21.
	1891-92 ...	Do. 55-14-17½.
VII.— Do.	1892-93 ...	Pieces 53.
	1891-92 ...	Do. 964.
VIII.— Do.	1892-93 ...	Trees 131.
	1891-92 ...	Do. 139.
IX.—Bamboos	1892-93 ...	No. 5,642,833.
	1891-92 ...	Do. 4,031,476.
X.— Do.	1892-93 ...	On contract No. 100,000.
	1891-92 ...	Do. *Nil.*

Under the heads Nos. II, IV and V a marked and serious falling off is noticeable. It appears from the summary given by the Conservator that the yield of large teak shows a decrease in all the three divisions of Kánara and in Dhárwár. The reasons assigned for such a result are agricultural distress, stagnation of trade and the competition of Burma teak. Thus the effects of the year of distress were still felt during the year under report, but better results may be expected during the current year.

Chapter IV.

21. The following table gives side by side the receipts and charges for the financial year 1892-93 and those for the year 1891-92 :—

Year.	Revenue.	Expenditure.	Surplus or net Revenue.
	Rs.	Rs.	Rs.
1892-93	12,01,085	6,74,597	5,26,488
1891-92	11,47,707	7,05,231	4,42,476
			84,012

There is thus a net increase of Rs. 84,012 in the surplus revenue of the year over that of the previous year. On the whole the financial results of the Southern Circle are very satisfactory, showing, as they do, a decrease in the expenditure and at the same time an increase in the gross revenue.

Chapter V.

Forest Administration.

22. The remarks and proposals contained in paragraphs 230 and 235 seem to be out of place in a report on the administration of the Department, and the Commissioner must express his dissent from the suggestion made in paragraph 235. The officers of the Forest Department in the Southern Circle from the Conservator downwards are most certainly not overworked, and the charge of the Conservator is not so wide, nor are his duties so heavy, that any curtailment of the Circle is desirable or necessary.

There is at present no remedy for the complaint made in paragraph 234 regarding the absence of village records in villages in the Ratnágiri District. There is no Government village agency in that district except in the tálukas of Vengurla and Málvan and in some of the villages in the northern tálukas, and under the law as it stands at present, the khots cannot be compelled to keep the several village forms.

23. During the period under report the forest administration of the Circle has been efficiently conducted by the Conservator and the various Divisional Forest Officers, with one exception, whose relations with the Land Revenue Department officials have been happily most amicable.

J. NUGENT,
Commissioner, S.D.

SIND CIRCLE.

No. 2123 of 1893-94.

From

THE DEPUTY CONSERVATOR OF FORESTS, SIND CIRCLE.

To

THE SECRETARY TO GOVERNMENT,
REVENUE DEPARTMENT,
BOMBAY.

Deputy Conservator's Office,
Karachi, 12th October 1893.

SIR,

I have the honour to submit herewith the annual Administration Report of the Sind Forests Circle for the year 1892-93, with its subsidiary statements. Forms Nos. 54 and 55 will follow shortly.

I have the honour to be,
Sir,
Your most obedient Servant,
W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

Submitted through the Commissioner in Sind.

Annual Administration Report of the Sind Forest Circle for the year 1892-93.

CHAPTER I.

Extension and Constitution of State Forests.

Alteration of area.

The subjoined table gives the area of the forests of the Sind Circle as they appeared on the records of the Deputy Conservator's office on the 30th June 1893, together with the additions thereto and deductions therefrom during the period—15 months—under report.

Name of Division.	Area, as it stood on 31st March 1892.				Area added during the year.				Area excluded during the year.				Area as it stood on 30th June 1893.			
	Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.		Reserved.		Protected.	
	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.	Square miles.	Acres.
Sukkur	446	79	1	128	...	7	...	...	...	...	...	...	446	86	1	128
Naushahro	229	90	3	427	...	...	...	...	...	95	...	...	228	635	3	427
Hyderabad	159	594	..	...	...	...	...	...	...	97	...	...	159	497	..	...
Jerruck	151	477	...	117	...	...	...	...	11	366	...	..	140	111	...	117
Total ...	936	600	5	32	...	7	..	...	11	558	...	...	975	49	5	32

In the above table 3 square miles and 427 acres appear for the first time in the Naushahro Division. This area is in the Shahghardhandan Forest in the Sehwan Taluka, but through an oversight has been omitted from former reports. In the Sukkur Division 6 acres and 36 guntas in the Ghotki Taluka were added to the Adilpur Forest, *vide* Government Resolution No. 3432, dated the 12th May 1893.

Of the areas excluded during the year under report, 95 acres from the Gajidero Forest were transferred to the Public Works Department for a new feeder to the Western Nara Canal, *vide* the Commissioner's order No. 2238, dated the 14th June 1893.

In the Hyderabad Division about 97 acres have been disforested, all from Shahmakai Forest; 93 acres and 23 guntas were handed over to Mir Ghulam Hussein in exchange for land taken up in past years for the Hyderabad Farm and Economic Garden; a small area of 2 acres and 38 guntas was transferred to Mir Nur Mahomed in exchange for land belonging to him, taken up for the Hyderabad-Umarkot Railway, and 33 guntas were granted to the Borah community of Hyderabad for a burial ground.

In the Jerruck Division the whole of the Laikpur Forest, 7,406 acres in area, was disforested and handed over to the Revenue Department, the forest being unirrigated and consequently unproductive.

2. The area then of the Sind Forests on the 30th June of the year under report was 11 square miles 551 acres less than it was on the 31st March 1892. It is to be hoped that with the assistance of the Forest Settlement and Demarcation Officer, it will be possible to report that large additions to our forest area have been made during the coming year.

Action of the river.

3. The following statement shows approximately the action of the river on the forest frontage during the period under report:—

Division.	Area lost. Acres.	Area gained. Acres.	Amount spent in clearing eroding banks. Rs.	Amount realized by sale of erosion timber. Rs.	Value of material in hand. Rs.	Remarks.
Sukkur	2,634 0	535 0	1,064 2 1	2,403 8 0	2,359 12 3	
Naushahro	1,505 0	1,100 0	493 4 0	804 0 0	24 9 0	
Hyderabad	1,835 0	880 0	85 0 0	223 0 0	.....	
Jerruck	3,053 0	4,146 0	.....	.....	.....	
Total ...	9,027 0	6,661 0	1,642 6 1	3,430 8 0	2,384 5 3	

Relative value of losses and gains.

4. It will be seen that the area lost during the period under report was 2,366 acres in excess of the area gained. It is, however, necessary to point out that while the estimate of the area lost is correct or very nearly so, as may be calculated from the forest map the same remark by no means applies to the area gained, which, except in the case of the Jerruck Division where the area was measured by a surveyor and tested by the Divisional Forest Officer, is generally guessed at by the Range Forest Officers called upon for a report. In order, however, to fully estimate the relative value of the losses and gains, it must be borne in mind that the areas gained are mere mud—banks—kachas which may or may not be washed away, and which, even should they remain as permanent accretions, may not be handed over to my Department. The gains, therefore, represent nothing tangible, certainly nothing that can be made use of for years, while the losses generally consist of good forest, fit perhaps for the axe. In the Sukkur Division, the area lost was one of our valuable Upper Sind forests; in it was an old established garden called the Aliwahan Garden, and a large Sisso plantation. Both have disappeared; the only consolation being that a large portion of the blackwood from the Sisso plantation was saved and sold in the Sukkur Depôt. The value of the land lost in the Hyderabad Division may be estimated from the following extract from the Divisional Forest Officer's Administration Report. "The area lost by erosion is very large, as the large kacha thrown up last year in front of the Unarpur Belo was again taken away by the river with some valuable babul forest. The land taken away in the Rano Range was all valuable kandi, bahan and babul forest. In the Miani Range the land washed away by the river was all sandy land, with the exception of a small piece in the Jakhri belo, which was valuable babul forest. The area gained is all sandy. The area washed away from the Keti Mahrani was all valuable babul and bahan forest." Our loss, then, is, as a rule, good forest; and our gain either mud or sandy accretions.

5. It will be seen that the amount spent in saving wood from threatened banks was Rs. 1,642-6-1, the amount realised by the sale of timber saved was Rs. 2,430-8-0, while the value of the material remaining unsold is estimated to be Rs. 2,384-5-3.

The appointment of a special Forest Settlement and Demarcation Officer.

6. As pointed out in last year's report the sustained yield of the forests, including the Revenue jungles, is not sufficient to meet the increasing demands of the Province, and it has been found necessary to appoint a special Forest Settlement and Demarcation Officer for acquiring additional forest areas. The annual report of this officer has probably reached Government through the Commissioner in Sind, and therefore everything connected with forest settlement and demarcation which is usually incorporated in the Forest Administration Report will on this occasion be omitted. I may, however, mention that, as the Forest Settlement and Demarcation Officer was appointed very late in the year, he has, of course, not been able to accomplish much more than hurry through some of the districts, examining land on the banks of the river suitable and available for forest purposes. I would suggest that in future Government should direct that the Forest Settlement and Demarcation Officer's report be submitted through the Deputy Conservator.

7. The year's experience again shows the great necessity for a larger area. The revenue jungles, especially in Upper and Central Sind, which have hitherto contributed to the supply of the Province, are fast failing. The Divisional Forest Officer, Sukkur, in his Administration Report says: "The approximate area of the riverain and watered forests is 1,90,000 acres; of this about 1,10,000 acres only are productive. The ascertained average yield per acre is 140 cubic feet. The yearly demand is over 50,00,000 cubic feet. A simple arithmetical calculation shows that the required area to ensure a sustained yield equal to the demand is, at this rate, 4,20,000 acres." Although I do not agree with the Divisional Forest Officer in his estimate of the average yield per acre, yet I must acknowledge that in many parts of the Division it is very small. The improved system of working, however, will soon improve the yield of the Division, and if we can tide over the period until the compartments now closed for reproduction can be again exploited, I hope, with additional forest areas, to be able to ensure the supply in the Sukkur Division. The Divisional Forest Officer goes on to observe that "this year the forest yield was supplemented by wood from the revenue jungles, but this cannot continue for more than a year; in fact, had this year's indent been fully met, the revenue jungles would have been completely cleared of all growth, so that in the ensuing year not more than 25,00,000 cubic feet of fuel can under the working plan be obtained from the forests alone." Such is the prospect in the Sukkur Division; in the Naushahro Division it is even worse; add to this the constantly increasing demands made upon the forests, and it will be seen that additional areas for forest purposes is a matter of imperative necessity.

Necessity for a much larger area: revenue jungles of Upper and Central Sind fast failing.

8. The lands which have been selected for reservation and notified under Section 4, but the forest settlement of which has not yet been completed, are given below. They are the same as last year, except Butho in the Manjhand Taluka, which was selected by the Divisional Forest Officer, Hyderabad, during the period under report. The papers connected with the whole of these areas have been placed in the hands of the Forest Settlement and Demarcation Officer, who, it is hoped, will speedily dispose of them.

Lands selected for reservation.

Name of Forest.	Taluka.	Area in acres.	Year in which notified.
Khairwah	Jacobabad	56 30	1886.
Gokalpur		64 30	
Adilpur	Ghotki	1,074 1	1890.
Tarai	Naushahro Abro ...	2,349 5	1887.
Chango Rahuja		1,749 35	
Choi...		3,132 20	
Adamji		4,352 25	
Phohyari		743 4	
Masti Khan		225 0	
Katcha Khanote	Hala	2,880 0	1890.
Butho or Katcha Lakha	Manjhand	579 0	1892.

9. Special attention has been paid to the keeping in order of the boundary paths, compartment lines and boundary marks, and for the most part the work has been satisfactorily done.

Boundary paths, &c.

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

I.—Regulation of Management.

10. The working plan described in last year's report was carried out in all parts of the Circle, but in some of the Divisions under great difficulty. To work according to a fixed plan of operations was neither popular with wood-cutters nor forest

The working plan.

subordinates; and it was only owing to the great exertions made by the Divisional Forest officers that I have been able to carry out my plans. In the Hyderabad Division, of which I formerly held charge, and into which I introduced years ago the working plan now in operation throughout the Circle, little difficulty was experienced, as the following remarks from the Divisional Forest Officer show: "The rough working plan adopted in the forests of this Division, though in force for some years, was carried out this year more satisfactorily than in former years. The work of cutting and supplying loco. fuel being done departmentally from the 1st October 1892; the compartments given out for cutting up to the end of March 1893 were cleared thoroughly and only standard trees were allowed to remain." This is very satisfactory; but in the other Divisions of the Circle it has been no easy task. The Divisional Forest Officer, Jerruck, writes: "This is the first time that any attempt at adhering to a system of working the forests was made, and it must be said that the endeavour to give effect to orders, and at the same time to cope with the indents placed on the Division, was not an easy matter. Of course the working plan ought to have been in full force when I took over charge of the Division, and believing it to be so, I issued no order on the subject; but I found on going round the Division, that the system had to be started, and the whole of the details dinned into the men. One forester, who had been in Upper Sind, and who had been fully instructed in the principles of the working plan, threw it all to the winds when he came to the Jerruck Division and conducted his duties just as if no orders had been issued on the subject at all. With such men to work with, it is no wonder that orders were not carried out. The older foresters do not like the new system, as they cannot fall in with it. The Poona College students are much the best for the work, although at first they might lack practical training and experience."

The Divisional Forest Officer, Naushahro, has not been without his troubles also, for he writes: In introducing the departmental cutting considerable difficulties were met with from the wood-cutters. Those who previously had been accustomed to cut wherever they could do so most conveniently to themselves, were now unwilling to be restricted to the compartments allowed them, and stood out for very high rates, and it is to be feared that in doing so, they were rather encouraged than otherwise by some of the Range Forest Officers."

The Divisional Forest Officer, Sukkur, writing on the same subject, says: "The first attempt to work systematically in this Division was made last year (1891-92), but as it was not sufficiently understood by the subordinates, nor respected by the contractors; in spite of all efforts and endeavours of Mr. Ryan, the introduction of the scheme, its execution, and rigid enforcement, cannot be said to have been satisfactory. Nevertheless, it was a great advance upon the old system, when the contractor was allowed to cut indiscriminately wherever he chose, thus making it hard to tell whether the forests were being overworked or underworked or depleted, as this being gradual and imperceptible, can be discovered after the lapse of a long time only when the damage is done, as bitter experience of last year, and the introduction of departmental felling, made it possible this year to adhere to the working plan more successfully, and a decided improvement is noticeable."

From these extracts it will be seen that a good start has at last been made; and when forest subordinates have been made to understand what strict enclosure and good fencing really mean, a great advance will have been made towards improving the fuel supply of the Province. In the Hyderabad Division, where the working plan has been in operation for some years, the yield per acre is far in excess of any of the other Divisions. Close cutting, good clearing, strict enclosure and the good fencing of all compartments exploited will be the four things aimed at in all Divisions, and the example I have had to make of several forest-guards and sub-rangers, who have neglected to carry out orders on these subjects, cannot fail, I feel sure, to have a good effect on the forest subordinates of the Circle.

11. The following statements show the progress made in the work of cutting of the forests into compartments. It is to be hoped that, by the end of the approaching working season, the work will be nearly completed throughout the Circle, so that when the areas about to be acquired by the Department are handed over, they may be at once taken in hand and treated in the same way.

Cutting and cost of compartment lines.

Division.	No. of miles.	Total cost.	REMARKS.
Sukkur	107	798 0 0	
Naushahro	2	15 12 0	
Hyderabad	1⅛	13 11 0	
Jerruck	25	381 12 4	
Total ...	135⅛	1,209 3 4	

Division.	Area cut up into compartments up to March 1892.		Area cut up during 1892-93.		Total area cut up into compartments.		Area still remaining to be cut up.
	Acres.	Length in miles of rides of 20 feet wide.	Acres.	Length in miles 20 feet wide.	Acres.	Length in miles 20 feet width.	Acres.
Sukkur...	1,95,995	1,224	4,829	30	2,00,824	1,254	83,102
Naushahro	82,764	516	320	2	83,084	518	66,378
Hyderabad	96,517	490	90	1	96,607	491	5,747
Jerruck	89,453	508	4,020	25	93,473	533	3,621
Total ...	4,64,729	2,738	9,259	58	4,73,988	2,796	1,58,848

II.—WORKING OF THE YEAR.

General Protection and Breaches of Forest Law.

12. The following statement shows the number of cases tried by Magistrates during the year ending 31st March 1892, and for the 15 months ending the 30th June 1893, and although the number of cases is slightly in excess of that of last year, yet when the extent of the area, and the number of the population of the districts in which the forests are situated, are taken into account, both the number of cases tried by Magistrates, and the offences compounded cannot be said to be in any way excessive :—

Cases tried by Magistrates.

Divisions.	Number of cases taken before Magistrates.		Number of convictions.	
	1891-92.	1892-93.	1891-92.	1892-93.
Sukkur	11	18	3	7
Naushahro	13	13	9	7
Hyderabad	9	15	8	10
Jerruck	2	4	1	1
Total ...	35	50	21	25

13. The number of cases compounded under Section 67 of the Indian Forest Act is given in the following table, and it should be remembered that the figures given

Cases compounded under Section 67.

in the second column of each sub-head are for 15 months. It will be observed that illicit grazing is the chief offence. This ought not really to be classed as a compounded offence, as such offences are dealt with under the grazing rules sanctioned by the Commissioner in Sind. A person found grazing his cattle without a pass, is fined one month's grazing-fees, and he is obliged to take out a pass for two months' grazing, *i.e.*, he gets two months' grazing for three months' grazing fees. Other offences were not numerous, but if not noticed, would simply mean that the forest subordinates had not done their duty :—

Divisions.	Illicit grazing.		Theft.		Other offences.		Compensation.	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
Sukkur	1,276	1,199	194	175	1	1	1,602	1,637
Naushahro	175	163	40	35	22	19	238	263
Hyderabad	483	213	162	101	...	...	1,054	632
Jerruck	377	456	16	31	6	1	524	553
Total ...	2,311	2,061	412	345	29	21	3,418	3,085

Disinclination of Divisional Forest Officers to prosecute offenders.

14. The Deputy Conservator regrets to report that the remarks made by the Commissioner in Sind in para. 6 of his review of last year's report have been misunderstood, and have caused Divisional Forest Officers to refrain from instituting proceedings, where proceedings were necessary. In one instance a Divisional Forest Officer refused to prosecute in a case, and when called upon for an explanation, wrote: "I have no desire to be harsh in administrating the law, and I hoped it would be understood that, in declining to prosecute in the case under reference, I was endeavouring to carry out the Commissioner's wishes." This, of course, could not be allowed, and the Deputy Conservator was compelled to write to the Divisional Forest Officer as follows: "I am afraid you are allowing the Commissioner's remarks in para. 6 of his review of the last Administration Report to influence you more than they are intended to do as regards the prosecution for forest offences in your Division. The Commissioner never intended that serious forest offences should remain unpunished. He simply wished to caution forest officers against any undue severity, and to impress upon them the necessity of acting in a kindly and forbearing spirit to those living on the borders of the forests—nothing more. It is scarcely necessary for me to point out to you that should it become known that you decline to take action against offenders, offences will increase to the detriment of the forest, and the demoralisation of those serving under you. The disinclination you appear to manifest to support those of your subordinates who have actually been assaulted, will have a tendency either to prevent them, through fear, doing their duty, or it will cause them to combine with the people and take compensation from offenders for their own benefit. In the case referred to in the letter under reply you are requested to prosecute the offenders."

Compensation paid under Section 67.

15. The amount accepted as compensation up to Re. 1 and upwards, in the cases compounded under Section 67 of the Indian Forest Act, is given in the following statement :—

Districts.	Names of Divisions.	Fines inflicted.	
		No. of cases.	Amount.
Upper Sind Frontier.....	Sukkur	27	Up to Re. 1
		3	„ Rs. 2
		1	„ „ 5
	Total ...	31	

Districts.	Names of Divisions.	Fines inflicted.	
		No. of cases.	Amount.
Shikarpur	Sukkur	1,168	Up to Re. 1
		92	„ Rs. 2
		30	„ „ 3
		16	„ „ 4
		13	„ „ 5
		7	„ „ 6
		2	„ „ 7
		5	„ „ 8
		5	„ „ 9
		1	„ „ 14
		2	„ „ 17
		1	„ „ 19
		1	„ „ 24
		1	„ „ 25
	Naushahro	66	„ Re. 1
		12	„ Rs. 2
		5	„ „ 5
		4	„ „ 4
		1	„ „ 13
		1	„ „ 40
	Total Shikarpur District..	1,433	
Hyderabad	Naushahro	61	Up to Re. 1
		27	„ Rs. 2
		11	„ „ 3
		2	„ „ 4
		1	„ „ 5
		1	„ „ 7
	Hyderabad	153	„ Re. 1
		89	„ Rs. 2
		14	„ „ 3
		11	„ „ 4
		18	„ „ 5
		7	„ „ 6
		3	„ „ 8
		2	„ „ 10
		1	„ „ 16
		1	„ „ 26
	Jerruck	12	„ Re. 1
		4	„ Rs. 2
		2	„ „ 3
		1	„ „ 4
		1	„ „ 6
	Total Hyderabad District...	422	
Karachi	Naushahro	19	Up to Re. 1
		6	„ Rs. 2
	Hyderabad	20	„ Re. 1
		11	„ Rs. 2
		4	„ „ 3
		7	„ „ 5
		1	„ „ 7
		1	„ „ 8
		1	„ „ 20
	Jerruck	291	„ „ 1
		124	„ „ 2
		31	„ „ 3
		19	„ „ 4
		3	„ „ 5
		2	„ „ 6
		1	„ „ 9
	Total Karachi District...	541	
	Grand Total...	2,427	

16. The number of cattle impounded for grazing in open and closed forests for the 15 months under report was as follows :—

Number of cattle impounded.

Names of Divisions.	Number of cattle impounded in		Total.
	Open forests.	Closed forests.	
Sukkur	5,681	2,324	8,005
Naushahro	2,395	4,515	6,910
Hyderabad	699	7,351	8,050
Jerruck	1,094	1,798	2,892
Total ...	9,869	15,988	25,857

17. The following table shows the area burnt during the period under report. It is satisfactory to report that there were fewer fires in the Sind Circle, and that they were less destructive than formerly :—

Fires : fewer in number.

Names of Divisions.	Number of fires.		Area burnt.	
	Financial year 1891-92.	Forest year 1892-93.	Financial year 1891-92.	Forest year 1892-93.
Sukkur	85	38	3,539	1,273
Naushahro	3	6	6	282
Hyderabad	7	2	580	90
Jerruck	12	7	1,414	594
Total ...	107	53	5,539	2,239

Improvement of Forest Growth.

18. The period under report has been a good one, both as regards the rainfall and the height of the inundation, and it is gratifying to be able to report that some of our high-lying forests, not usually flooded, received a watering. There is usually enough seed in the soil of the Sind forests to ensure reproduction if there is sufficient water to make the seed germinate and the young seedlings are strictly protected from grazing. Of course, while the forests are under water, they are naturally closed; but in order to ensure the safety of the young growth in some of the forests of the Hyderabad Division, the Deputy Conservator sanctioned the closing of a certain number of forests to grazing of all kinds until the fences had been properly constructed and repaired. This was done prior to the inundation, and the Divisional Forest Officer was enabled, on the subsidence of the river to select certain areas for enclosure before cattle were allowed to run over them, and the result, as regards the young growth, was most satisfactory. This was no hardship to the cattle, as there was plenty of the stubble of the kharif crop for them to feed upon; but as it involved a slight loss of revenue to Government, it is a practice which will not be generally adopted.

Natural re-production.

19. It was pointed out in last year's report that the construction of bunds had in some parts of the Province completely altered the character of the country; that they kept out the floods which once watered plains, the result being dried up forests, and the complete destruction of what were once excellent grazing grounds; and a map showing the forests which had been rendered unproductive was prepared and forwarded with the Administration Report. There can be no doubt that the bunds prevent a vast amount of natural re-production, and have rendered many of the once well-wooded areas quite useless for forest purposes. Take the country from Kashmor to Shewaa on the right bank of the river, nearly the whole of this portion of Sind is cut off from the floods, the result being that the jungles are fast drying up, and unless some change takes place, there will soon be a scarcity of fuel even for domestic purposes. It must be recorded that in the Jerruck Division certain of the forests hitherto deprived of water, and rendered unproductive, received an unexpected supply of water. The bunds, unable to withstand the force of the water, were breached in several places to the great benefit, it is to be hoped, of some of our drying-up Lower Sind forests.

Natural re-production checked owing to the construction of bunds.

Exploitation of Major Forest Produce.

20. In the clearing of compartments selected for exploitation under the working plan, the object aimed at is the utilisation of all available material. The mature timber is cut and either conveyed to the various depôts for sale, or converted into bolsters and sleepers supplied to the North-Western Railway; slabs and props sent to the Khost Colliery in Baluchistan, and beams for the Gun Carriage Factory, Bombay. All fuel suitable for locomotive purposes is conveyed to the various railway stations for use on the North-Western Railway; the fuel, too thick for locomotive purposes, is disposed of for export to Bombay, Karachi, and the ports along the coast, and for the Commissariat Department, Quetta; the thin fuel is sent to the depôts for sale as firewood; while the crooked and useless timber is converted into charcoal.

Utilisation of all material found in compartments selected for exploitation.

Extraction and transport of Forest Produce by land and water.

21. The cost of carriage of the produce of the forests of the Circle is a matter of great importance, and one to which the Deputy Conservator has given considerable attention during the past year. Some of the forests are so remote from the railway, that it is impossible to utilise either the timber or locomotive fuel found within them—the cost of carriage being prohibitive. About two lakhs of rupees are spent annually on the conveyance of locomotive fuel alone, the means of trasnport being by donkey, camel, bullock-cart and boat. The Deputy Conservator has had under consideration a scheme for providing a portable tramway for use in those forests within six or seven miles of the railway, but has found that the cost would be far greater than the present method of transport.

Utilisation of Forest Produce sometimes impossible owing to the cost of carriage.

22. When difficulties occurred during the year in getting wood cutters, who both cut the fuel and carry it to the banks of the river, to work at the rate offered by the department, the Deputy Conservator had drawings and estimates prepared for "conveyors," but found that they could not well be used beyond two or three miles from the banks of the river, and the idea of introducing them had to be abandoned. A few years hence and steam in some shape or other will have to be resorted to, for the cost of labour and carriage is every year becoming more and more expensive. In order to be sure that there was a general rise in the cost of labour in the Province, the Deputy Conservator addressed the Superintending Engineer in Sind on the subject, and Mr. Thompson gave it as his opinion that the cost of labour had risen during the last ten years more than 25 per cent. Unless, therefore, labour is imported, or people induced to emigrate from the more populous districts of India to Sind, where there is an abundance of room, all public works and forest operations will become more and more expensive.

23. It may be mentioned that the fuel used at Kotri is chiefly brought from the upper riverain forests in boats partly owned by the department and worked on the half-share system. This has proved an excellent system, one that gives the department the control of a number of boats, and prevents the boatmen on the river from combining and demanding exorbitant rates for the carriage of fuel.

Present system of department working of considerable advantage to the railway.

24. In order to fully carry out the system of the departmental cutting for locomotive fuel in those compartments selected for exploitation, and its delivery to the railway, it was necessary to have some one to come between those responsible for the cutting, and the railway, some one who should see that the fuel cut was suitable for locomotive purposes and that it was fairly stacked. The stacking, guarding, and delivery of all locomotive fuel has during the last twelve months been under the superintendence of a European, Mr. Clarkson, who undertook the work on contract. Hitherto the work of stacking and delivery had been done by the native contractors who cut the wood, and the result was that they were always trying to defraud both the Forest Department and the Railway, and were the cause of endless disputes between both departments. This has all been put a stop to. Mr. Clarkson has proved himself specially fitted for the work, and he has carried out the orders issued to him, to the entire satisfaction of the Deputy Conservator, with the result that not a single dispute between the two Departments has arisen during the year. It has been fully established that the present system of working is not only beneficial to the forests, but of considerable advantage to the railway also.

Exploitation of Minor Forest Produce.

Grazing.

25. The period under report has been marked by one of the heaviest rainfalls on record. An abundance of pasture and water were to be found on the hills, and there was no necessity for the hillmen to come for pasture to the forests, consequently there has been a considerable falling off in the grazing revenue of the Circle. Although the amount (Rs. 60,687) realised from grazing is large, and forms an important item of revenue, it would be well for the forests, if instead of admitting all who pay for it, some restriction could be placed on the number of cattle admitted to the forests. There can be no doubt that many of our forests, in addition to being overworked, are overgrazed. In compartments strictly enclosed for reproduction may be seen young growth and grass growing thickly together, and on the outside of the fence nothing but dust, dust blown about by the wind or scattered by wandering cattle; in some instances, licking up the dried babul blossoms from the ground, all pointing to overgrazing.

With forests in this condition and about one-third of the area of the Province cut off from the river by embankments, it is only reasonable to suppose that so long as this state of things lasts, the condition of these shut-out districts must be anything but satisfactory. Both cattle and people suffer, while the soil, deprived of its top dressing of silt, is gradually, but surely becoming impoverished.

26. Large irrigation works are under contemplation; before the works are completed, it is to be hoped that adequate provision will be made for irrigating the areas through which they pass, both for pasture and forest.

Miscellaneous produce.

27. During the period under report the collection of the following items of minor forest produce has been discontinued by order of the Commissioner in Sind, honey, ber fruit (*zizyphus jujuba*), and khar or crude soda. The products were unimportant and the Deputy Conservator willingly acquiesced in relinquishing them. Babul pods, lac and munj grass are the chief minor products now collected.

CHAPTER III.

Gross yield and outturn of Forest Produce.

A comparison between the Financial and Forest year not possible.

28. The following statement shows the outturn and sale of timber and firewood from the forests of the Sind Circle. They are prepared for the Financial and the Forest year respectively, the latter of which includes,

on this occasion, three extra months. It has not been thought necessary to compare the Forest with the Financial year, the former being for 15 months and the latter being for 12 months only. It may be pointed out that the great difference in the outturn of firewood was caused by the interference in forest operations recorded in the following chapter :—

29. The details of the working of the depôts are given in the following table :—

Names of Depôts.	Stock on hand on 1st April 1892.			Added during the Forest year.			Disposed of during the Forest year.			Balance on the 30th June 1893.		
	Timber.	Posts and rafters.	Fuel.	Timber.	Posts and rafters.	Fuel.	Timber.	Posts and rafters.	Fuel.	Timber.	Posts and rafters.	Fuel.
	C. ft.	No.	Mds.	C. ft.	No.	Mds.	C. ft.	No.	Mds.	C. ft.	No.	Mds.
Shikarpur	30	3,484	...	517	6,305	...	176	7,045	...	371	2,744	...
Sukkur	4,215	11,260	...	26,053	56,726	...	19,492	51,366	...	10,776	16,620	...
Rohri	1,044	284	...	3,276	17,643	...	1,980	15,260	...	2,340	2,667	...
Larkano	49	...	300	...	...	3,400	36	...	3,700	13	...	...
Sehwan	...	2	...	10	8,944	...	10	8,946	...	...	...	...
Keti Bandar...	297	...	1,250	17,368	...	750	17,665	...	1,000	...	...	1,000
Kotri	...	...	10,653	31	14,142	191,912	31	9,137	184,315	...	5,005	18,250
Hyderabad	72	49,404	5,375	15,495	122,299	126,251	13,884	133,596	121,379	1,683	38,107	10,247
Total ...	5,707	64,434	17,578	62,750	226,059	322,313	53,274	225,350	310,394	15,183	65,143	29,497

30. The quantity of timber and firewood sold at each Depôt is given below.

Name of Depôts.	Timber c. ft.		Posts and Rafters, No.		Firewood, Mds.	
	1891-92.	Forest year 1892-93.	1891-92.	Forest year 1892-93.	1891-92.	Forest year 1892-93.
Shikarpur	494	176	6,568	7,045	...	...
Sukkur	12,039	19,492	29,266	51,366	350	...
Rohri	1,425	1,980	10,798	15,260	...	...
Larkana	19	36	...	...	7,455	3,700
Sehwan	...	10	8,038	8,946	...	...
Keti Bander	21,140	17,665	...	...	...	1,000
Kotri	1,536	31	510	9,137	1,90,228	1,84,315
Hyderabad	3,380	13,884	1,32,049	1,33,596	1,18,672	1,21,378
Total ...	40,033	53,274	187,229	225,350	316,705	310,394

31. The forest material cut from private forests and unoccupied Government waste Nos. and jagirs and imported for sale into the towns of Hyderabad and Kotri are given in the following statement.

Name of Town.	Babul logs. No.	Posts and Rafters of all kinds.	Firewood.	Charcoal.	Babul bark.	Lac.	Planks.	Reed.	Estimated value.
	No.	No.	Mds.	Mds.	Mds.	Mds.	No.	Bundles.	Rs.
Hyderabad	1,749	3,000	76,726	3,829	7,557	307	...	...	11,050
Kotri	1,515	36,237	55,186	1,292	5,818	...	645	...	2,287
Total ...	3,264	39,237	131,912	5,121	13,375	307	645	...	13,337

32. The following statement exhibits the quantity of timber supplied to Bombay and other Departments.

Name of Department.	Babul logs.	Babul sleepers.	Posts and Rafters of all kinds.	Babul Bolsters.	Babul Props.
	No.	No.	No.	No.	No.
North-Western Railway	...	835	...	1,552	...
Executive Engineer, Sharig	...	...	...	...	13,158
Harbour Works	...	50	...	...	...
Public Works Department	...	...	821	...	...
Gun Carriage Department	900	...	...	...	...
Hyderabad Jail	...	...	1,750	...	...
Total ...	900	885	2,571	1,552	13,158

33. The subjoined statement shows the quantity of firewood supplied under departmental Agency to the State Railway and other Departments and large consumers for 2 years.

To whom supplied.	Firewood in maunds.	
	1891-92.	Forest year 1892-93.
North-Western Railway	1,863,527	1,692,215
Hyderabad-Umarkot Railway	14,600	.....
Commissioner's Steamer "Jhelum"	24,450	27,584
Indus Ferry Steamers	57,675	66,622
River Conservancy Department	6,625	5,281
Public Works Department	28,200	43,488
Karachi Harbour Works	64,900	21,857
Commissariat Department	98,906	203,860
Hyderabad Water Works	67,438	52,000
Sukkur Municipality	10,500	10,400
Hyderabad Jail	2,718	4,178
Government Farm, Hyderabad	13,750	7,500
Nawab of Bahwalpur's steamers	4,244	.....
Seth Vishindas, Contractor	43,699	45,383
Local Board, Shikarpur and Hyderabad	...	6,975
Total ...	2,301,232	2,187,343

34. Statement showing the quantity of timber felled departmentally and disposed of in the Forests to private purchasers is given below :—

Division.	Timber.	Babun Posts.	Babun Rafters.	Jhau Rafters.
	C. ft.	No.	No.	No.
Sukkur	1,535	24	116	60
Naushahro	706	...	...	...
Hyderabad	981	800	1,500	...
Jerruck	637	...	...	...
Total ...	3,859	824	1,616	60

35. The following statement exhibits the value of timber and firewood removed from the forests other than that removed under the Permit Pass system for 2 years :—

Name of Division.	Timber.		Firewood.	
	1891-92.	Forest year. 1892-93.	1891-92.	Forest year 1892-93.
Sukkur	5,972	2,294	1,204	697
Naushahro	963	1,021	466	447
Hyderabad	908	2,596	2,480	3,763
Jerruck	629	811	329	622
Total ...	8,472	6,732	4,479	5,529

36. The following is a comparative statement showing receipts from different ghats or nakas in the Sind Circle.

Name of Division.	Name of Ghat.	Revenue realised.	
		1891-92.	Forest year. 1892-93.
Sukkur	Rahuja	9,929	13,086
	Jhali		
	Rohri		
	Saddar	11,523	17,476
	Stewart		
	Khura		
Naushahro	Larkana	2,309	2,549
	Garhi Yasin	938	1,167
Hyderabad	New Fuleli	1,168	1,721
	Old Fuleli		
	Hajipur		
	Total Rs. ...	25,867	35,999

37. Free grants of timber made to poor people residing in the vicinity of forests are shown below.

Division.	Amount.	Remarks.
	Rs.	
Sukkur	754	
Naushahro	239	
Hyderabad	202	
Jerruck	149	
Total ...	1,344	

38. Summary of Produce. Timber extracted from the forests by Government Agency.

Division.	Timber.		Posts.		Rafters.	
	Forest year 1891-92.	Forest year 1892-93.	1891-92.	Forest year 1892-93.	1891-92.	1892-93.
	C. ft.	C. ft.	No.	No.	No.	No.
Sukkur	15,913	23,183	8,615	14,297	38,385	59,872
Naushahro	2,609	5,143	534	1,372	7,955	7,574
Hyderabad	22,587	18,935	5,083	16,618	113,200	123,146
Jerruck	21,415	28,733	8,950	590	28,600	...
Total ...	62,524	75,994	23,182	32,877	188,140	190,592

39 The following is a comparative statement for 2 years of the quantity of timber cut and removed from the forests by purchasers :—

Division	Timber.		Posts.		Rafters.	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
	C ft.	C. ft.	No.	No.	No.	No.
Sukkur	5,729	1,836	770	304	57,677	15,150
Naushahro.....	1,687	2,563	...	50	32,425	20,123
Hyderabad.....	2,218	4,097	950	2,672	8,094	19,675
Jerruck	471	1,461	3,585	4,823	13,169	5,916
Total ...	10,105	9,957	5,305	7,849	111,365	60,864

40. The total yield of timber in each Division is given below for 2 years :—

Division.	Timber.		Posts.		Rafters	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
	C. ft.	C. ft.	No.	No.	No.	No.
Sukkur	21,642	25,019	9,385	14,601	96,062	75,022
Naushahro.....	4,296	7,706	534	1,422	40,380	27,697
Hyderabad.....	24,805	23,032	6,033	19,290	1,21,294	1,42,821
Jerruck	21,886	30,194	12,535	5,413	41,769	5,916
Total ...	72,629	85,951	28,487	40,726	299,505	251,456

41. The total yield of firewood in each Division is given below :—

Division.	Firewood, Mds.	
	1891-92.	1892-93.
Sukkur	1,429,661	1,434,547
Naushahro	500,822	558,890
Hyderabad	834,662	900,773
Jerruck	242,882	239,531
Total ...	3,008,027	3,133,741

42. The total yield in charcoal is as under :—

Division.	Charcoal, Mds.	
	1891-92.	Forest year, 1892-93.
Sukkur	1,486	2,970
Naushahro	9,896	11,873
Hyderabad	4,886	7,557
Jerruck	42,409	52,867
Total ...	58,677	75,267

43. The total yield of timber and firewood and charcoal in cubic feet is given in the subjoined statement :—

Name of Division.	Outturn in cubic feet.			
	Timber of all kinds.		Firewood and charcoal.	
	1891-92.	1892-93.	1891-93.	1892-93.
Sukkur	77,824	76,296	7,777,487	7,924,123
Naushahro	29,368	23,918	3,458,707	3,342,680
Hyderabad	90,665	107,477	4,705,505	5,265,260
Jerruck	41,873	42,849	1,984,562	3,154,491
Total ...	239,730	250,540	17,926,261	19,686,554

44. The total yield of the Circle in timber, firewood and charcoal is given below :—

Kind of Timber.	Quantity.	1891-92.	1892-93.
Timber	C.-ft.	72,629	250,540
Posts	No	28,487	40,726
Rafters	No	299,505	251,456
Sleepers	No	3,626	926
Firewood	Mds.	3,008,027	3,133,741
Charcoal	Mds.	58,677	75,267

45. The realisation by sale of farms for removal of Minor Produce and the right to fish in forest waters is given below for 2 years.

Division.	Babul pods.		Lac.		Munj and Sargrass, &c.		Fishery.	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
Sukkur	428	756	...	...	1,034	932	1,848	1,625
Naushahro	1,954	2,717	...	...	729	1,114	1,033	1,356
Hyderabad	8,296	12,667	2,372	8,067	161	218	644	605
Jerruck	3,893	3,319	205	596	...	...	405	638
Total ...	14,567	19,459	2,577	8,663	1,924	2,264	3,930	4,224

46. The revenue from grazing dues in each Division is given below :—

Name of Division.	Grazing Fees.	
	1891-92.	Forest year, 1892-93.
Sukkur	17,133	20,041
Naushahro,...	10,151	11,818
Hyderabad	16,825	13,344
Jerruck	14,891	15,484
Total ...	59,000	60,687

47. The area under cereal cultivation and the amount realised by assessment in each Division is given in the following statement :—

Division.	Area under cultivation.				Amount realised by assessment.			
	Kharif.		Rabi.		Kharif.		Rabi.	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
Sukkur	250	479	1,877	2,523	582	1,091	8,012	10,408
Naushahro	364	240	3,977	2,668	1,017	638	11,937	7,925
Hyderabad	247	146	1,060	1,027	791	542	2,313	2,994
Jerruck.....	788	379	379	53	1,916	1,438	832	137
Total ...	1,649	1,244	7,293	6,271	4,306	3,707	23,094	21,464

CHAPTER IV.

Financial Results.

Receipts and Expenditure.

48. The total receipts and expenditure for the financial and Forest years are given in the following table :—

	Actuals, 1891-92.	Actuals, 1892-93.	Actual Forest year, 1892-93.
	Rs.	Rs.	Rs.
Receipts	7,74,210	6,81,223	7,91,031
Expenditure—			
A.—Conservancy and Works ...	4,10,390	3,66,488	4,19,135
B.—Establishment	91,546	98,765	1,25,196
Total Expenditure ..	5,01,936	4,65,253	5,44,331
Net Revenue ...	2,72,274	2,15,970	2,46,700

Causes of the decrease in Revenue.

49. The period under report has been a most unfortunate one for forest operations. For the first three months cholera raged throughout the Province making it impossible to get labour; this was followed by quite an abnormal rainfall and disastrous floods which rendered all forest operations impossible. Four months thus passed without anything being done. The inundation period then set in, and it was not until the end of October that exploitation really began. To add still further to our embarrassment, the river which usually rises in July, rose a month earlier than usual and forest operations in the river-ain forests ceased at the beginning of June.

CHAPTER V.

Forest Administration.

The controlling staff: necessity for European supervision.

50. In last year's report it was pointed out that Colonel MacRae had retired from the service in May 1891, and that Mr. Hexton had been appointed 3rd Grade Conservator of Forests and placed in charge of the Circle. From the 1st April 1892, owing to sanction having been received from

the Secretary of State for India for the abolition of the Conservatorship of the Sind Circle, Mr. Hexton had to revert to the grade from which he had just been promoted, *viz.*, 1st grade Deputy Conservator of Forests. The abolition of the Conservatorship was, it appears, carried out solely on the recommendation of Colonel MacRae, who was under the impression that the Sind forests did not require European supervision. Experience has shown that he was in error both as to the state of the forests and the requirements of the Province, and now owing to his want of foresight, many parts of the Sind forests are, and will be for some years, absolutely useless. Government are no doubt by this time aware that the abolition of the Conservatorship was a great mistake, and are also fully alive to the fact that instead of trusting to native Divisional Forest Officers, as recommended by Colonel MacRae, it is of the utmost importance that the Divisions of the Circle should be under European trained men on the Imperial Forest List.

Dr. Schlich, when he re-organised the Sind Forest Department, saw the necessity for this, and it may be mentioned that in his time the three divisions of the Circle were in charge of European officers; had they been allowed to remain the condition of the forests would in all probability have been very different from what it now is. The above remarks are made in no spirit of ill-will against Colonel MacRae, but the Deputy Conservator feels it his duty to place before Government the true state of the Sind forests and to make suggestions for their improvement. A good start has now been made on a sound basis, and it only rests with Government to provide the necessary controlling power in order to carry it to a successful issue.

51. Mr. Nirbdas, Divisional Forest Officer, Jerruck, retired on 14th May 1892, and Mr. J. Baptista arrived on 15th June 1892.

Divisional Forest Officers.

52. The subjoined statement shows the officers who held charge of the different Divisions of the Sind Circle during the year under report :—

Name.	Division.	From	To	Remarks.
G. M. Ryan	Sukkur	1st April 1892	4th July 1892	Mr. Hexton proceeded on privilege leave on 5th May 1892, and Mr. Ryan was appointed to act for him up to 21th June 1892, when he was relieved by Mr. Hexton on 25th idem, in the forenoon.
J. Baptista	Do.	5th July ,, ...	30th June 1893	
Tuljaram	Nanshahro	1st April ,, ...	7th July 1892	
O. H. L. Napier ...	Do.	8th July ,, ...	30th June 1893	
Showkiram	Hyderabad	1st April ,, ...	30th ,, ...	
Neribdas	Jerruck	1st April ,, ...	14th May 1892	
G. M. Ryan	Do.	15th May ,, ...	14th June ,, ...	
J. Baptista	Do.	15th June ,, ...	4th July ,, ...	
G. M. Ryan	Do.	5th July ,, ...	30th June 1893	

The trained Range Forest officers of the circle.

53. A fifth trained Range Forest Officer having passed through the College of Science, Poona, was added to the establishment and four others are still in training.

Inadequacy of the Subordinate Establishment Office and Protective.

54. For some time past the Deputy Conservator has felt that the subordinate establishment under him, owing to its numerical weakness, and, in many instances to the inefficiency of the men, has been unable to cope with the work of the Circle. In former years men were not, I am afraid, appointed, because of any particular fitness for the work they were about to undertake. The pay and prospects were not sufficient to tempt good men into the service; and although service in the Forest Department is by no means unpopular, there can be little doubt that many who entered the service did so in the hope that there would be little pickings to be made. Looking at the price of labour in the Province, and the wages demanded by the lowest of house-

hold servants, it is absurd to think that pay ranging from Rs. 6 to Rs. 8 for a Forest Guard; Rs. 10 to Rs. 15 for a Sub-Ranger; Rs. 20 to Rs. 40 for a Forester; and Rs. 50 to Rs. 80 for a Forest Ranger is at all adequate. When a common coolie can command from seven to eight annas a day, a Forest Guard on Rs. 6 per mensem cannot but have an itching palm, which, in many instances, is, I feel sure, satisfied either at the expense of Government or villagers living on the borders of the forests. Given such a state of things, with native supervision, as recommended by the late Conservator, Colonel MacRae, and what can be expected? The Deputy Conservator has refrained from making any representation on this subject pending the decision of Government on the scheme for the reorganization of the subordinate staff submitted to the Government of India about two years ago. The necessity, however, for some change is great, and the Deputy Conservator feels that it would be unwise to delay making his proposals for the reorganization of the subordinate establishment of the Sind Circle any longer. Proposals, therefore, on the subject will be submitted to Government through the Commissioner in Sind at an early date.

The Deputy Conservator's visit to Changa Manga.

55. During the period under report the Deputy Conservator was directed to visit Changa Manga to collect information with a view of starting an irrigated plantation in Sind, as recommended by the Secretary to the Government of India in his No. 1555 F, dated the 28th December 1892, Revenue and Agricultural Department (Forests), embodied in Bombay Government Resolution No. 571, dated the 20th January 1893. The Deputy Conservator went to Changa Manga, made a careful inspection of the plantation, studied the system of irrigation and working, and on his return sent in an exhaustive report, in which he stated that should Government decide on an irrigated plantation in Sind, he was prepared to submit proposals for its formation and working. Correspondence respecting the water-supply of such a plantation has taken place with the Irrigation Department, and the Deputy Conservator has requested Mr. Thompson, in his estimates for the new Shikarpur Canal, to provide for the irrigation of 1,000 acres of forest land in the Sultan Kot Reserve through which the new canal will run. What has been done in this case might, as suggested in para. 26 of this report, always be done when any irrigation works are in course of contemplation.

Irrigation works should be constructed with a view to forest preservation.

56. The Deputy Conservator feels it his duty to point out that forest administration is rendered much more difficult than it formerly was owing to the fact that many of the irrigation works have been constructed without the slightest thought as to forest preservation. There can be no doubt that the bunds, as at present constructed, are a source of trouble to many. They add considerably to the difficulties of the Forest officer, who, owing to the destruction of the grazing grounds of the Province, finds his forests overgrazed and his compartments closed for reproduction invaded by hungry and wandering cattle; forests upon which he may have relied for a supply of timber and fuel he finds gradually drying up, while the adjacent jungles are but the remains of former greatness, all adding to the difficulties of forest administration. Not only are they a source of trouble to the forest officer, but to the villages of many districts also. Relying on the protection a bund is supposed to afford, a village is built in some depression sheltered from the wind, the bund bursts, and the villages barely escape with their lives. To the railway they are a constant source of annoyance and expense, for relying on the bunds as a protection from the floods, the lines are constructed in some instances with insufficient culverts and bridges to carry off the immense volume of water set free by the bursting of a bund, the line is breached in, perhaps, several places, the whole export trade of the Province is either at a stand-still or traffic is diverted, perhaps never to return. It is doubtful whether the soil of Sind is as fertile as it once was. The silt which was once carried over the soil, furnishing a splendid manure, is now carried down the river, choking its mouth, and gradually but surely stopping up all communication with the sea. The question of bunds is one requiring careful consideration, both from a forest point of view, and as regards the trade and general

welfare of the Province, and the Deputy Conservator feels that no apology is needed for calling attention to a subject of such paramount importance.

The Forest area in the Thar and Párkar District.

57. The management of the forest area in the Thar and Párkar District is still in the hands of the Deputy Commissioner of the District, with a retired Range Forest Officer at its head, the funds being supplied by, and a portion of the receipts credited to, this Department.

The Divisional Forest Officers.

58. The thanks of the Deputy Conservator are due to the Divisional Forest Officers of the Circle for the valuable assistance they have rendered during the year which has been an exceptionally difficult one. The new system of working, a system unpopular with forest subordinates, and disliked by wood-cutters and residents on the borders of the forests, could not have been so successfully carried on without their hearty co-operation, and the Deputy Conservator has specially to thank Messrs. Ryan, Napier and Showkiram for the assistance they have rendered him.

Work of the office establishment.

59. The work of the office has increased very much of late. Three times as many letters pass through it as in the time of Colonel MacRae, and the office establishment has all been overworked. The Deputy Conservator has to record the good and willing work of Mr. Parmanand, the Head Accountant, to whom special thanks are due, and to Mr. Parmanand, Head Clerk, and Mr. Kundanmal, 2nd Clerk, for the ready assistance they have rendered him.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

No. 4169 OF 1893.

REVENUE DEPARTMENT.

Commissioner's Office
On the Indus, 12th November 1893.

Submitted to Government.

2. The total area under reserved forests stood at 986 square miles and 600 acres on 31st March 1892. To this 7 acres were added and 11 square miles and 558 acres were excluded for purposes enumerated in para. 1 of the Administration Report, reducing the area to 975 square miles and 49 acres at the close of June 1893. There was no change in the area under protected forests.

3. The total area lost by erosions during the year amounted to 9,027 acres, while that gained by accretions was 6,661 acres. As remarked by Mr. Hexton, the former figures very nearly represent the correct area lost, but the latter show only the approximate area gained by the action of the river. It is true that the gain cannot be compared with the present loss; but there is no gainsaying that the area gained will prove a useful addition to the forest area in course of time.

4. The oft-repeated complaint of the Deputy Conservator of Forests, Sind Circle, that the sustained yield of the forests, including the revenue jungles, is not sufficient to meet the increasing demands of the Province has been met by the appointment of a special Forest Settlement and Demarcation Officer for acquiring additional forest areas. This officer entered upon his new duties on the 23rd of November 1892, and could not be reasonably expected to do much more than what he is described to have done. The Acting Commissioner, however, has full confidence in the judgment of this special officer, and there is no doubt that under the instructions issued by Mr. James, sufficient area will be added to the Sind forests in due course to make the sustained yield equal to the demand. The special Forest and Demarcation Officer has forwarded no report to the Acting Commissioner, but he will be instructed to submit one next year, through the Deputy Conservator, for incorporation in the Sind Forest Administration Report as usual.

5. The system of working plan to which allusion was made last year was introduced during the year under report with satisfactory results.

6. The cases dealt with under Section 67 of the Indian Forest Act decreased in the Sukkur, Nausháhro and Hyderabad Divisions, while those in the Jerruck Division show an increase for which no explanation has been given in the report. It is true that the figures for 1892-93 embrace a period of 15 months, but those for the Jerruck Division do not show any decrease corresponding with that in the three northern Divisions. Mr. James' remarks on this subject, contained in para. 6 of his review of the last year's Administration Report, were so plain that no Divisional Forest Officer of average ability could have misunderstood him and abstained from prosecuting offenders when this course was desirable in any case. The Acting Commissioner, however, finds that Mr. Hexton has already taken steps to remove the misunderstanding among his subordinates, and therefore no further remarks are called for.

7. It is satisfactory to note that the number of fires and the destruction caused by them were much less than in the previous year.

8. The Deputy Commissioner has again alluded to the natural production in forests being checked by the construction of protective river embankments. The Acting Commissioner need only remark that these embankments are essential to protect large agricultural interests of the country. The drying up of inland forests is, therefore, inevitable, and this has necessitated a change in the policy of adding any inland forest area as discussed in para. 3 of Mr. James' review of the last year's Administration Report, and to which no further allusion is necessary. But the desirability of affording irrigational facilities for existing inland forests, where these can be provided without detriment to agricultural interests, will not be lost sight of.

9. The forest revenue during the financial year 1892-93 amounted to Rs. 6,81,223 as against Rs. 7,74,210 in the preceding year, *i. e.*, Rs. 92,987 less. The total expenditure in 1892-93 was Rs. 4,65,253 as compared with Rs. 5,01,936 in 1891-92, or less by Rs. 36,683. These results are attributed by the Deputy Conservator to the year having proved unfortunate for forest operations. There was cholera in the beginning of the year. This was succeeded by an abnormal rainfall and high inundation which covered the country with floods, rendering forest operations difficult.

10. As remarked in para. 11 of the last year's review, the Deputy Conservator has not furnished the necessary particulars as to the revenue derived from the sale of wood grown in revenue jungles. But on a separate reference from this office he promises to distinguish between this source of revenue in his future reports.

11. The Deputy Conservator's proposals for strengthening the subordinate forest establishment in Sind will be dealt with separately when received. No remark on this subject is, therefore, necessary in this forwarding memo.

12. Mr. Hexton has administered his department during the year under report with his usual zeal and energy.

R. I. CRAWFORD,
Acting Commissioner in Sind.

FORM

FOREST DEPARTMENT, BOMBAY,

Area of Reserved

Divisions.	Civil Districts.	Names of Forests.	Area on 1st April 1892.		Added during the year.
			Acres.	Equivalent in square miles.	Acres.
Sukkur ...	Shikarpur ...	Raoti	8,129	12·449	...
		Daresh	1,725	2·445	...
		Ubauro	3,150	4·590	...
		Mirpur	7,251	11·211	...
		Rabarki	1,654	2·374	...
		Keti	2,388	3·468	...
		Rangu	972	1·332	...
		Narh	1,376	2·96	...
		Sarhad	3,529	5·329	...
		Islam	2,064	3·144	...
		Jehanpur	4,340	6·500	...
		Bahab	8,935	14·25	...
		Budh	1,217	1·577	...
		Sadhuja	7,641	11·601	...
		Shahpur	11,215	17·335	...
		Pawhari	587	0·567	...
		Hussenbeli	3,407	5·207	...
		Azizpur	880	1·240	...
		Ding	1,543	2·268	...
		Syedpur	8,216	12·536	...
		Kohri	22,551	35·151	...
		Sultanpur	1,753	2·473	...
		Saliani	5,014	7·534	...
		Ghotki	4,200	6·360	...
		Adilpur	12,676	19·516	7
		Walu Mahar	2,648	4·83	...
		Sumowah	2,252	3·332	...
		Wasir	1,417	2·137	...
		Jarwar	2,839	4·279	...
		Abad	5,604	8·484	...
		Kadirni Bindi	2,306	3·356	...
		Khia Bindi	3,118	4·558	...
		Shah	13,433	20·633	...
		Bindi Dhareja	6,866	10·466	...
		Kadrapur	2,564	4·4	...
		Mohro Mari	11,857	18·337	...
		Andaldal	12,104	18·584	...
		Bagarji	13,884	21·444	...
		Raiswah	905	1·265	...
		Lakhi	3,614	5·414	...
		Ghari Halim	2,096	3·176	...
		Kot Sultan	17,342	27·62	...
	Upper Sind Frontier	Jamshero	6,616	10·216	...
		Abad	985	1·345	...
		Mehrabpur	991	1·351	...
		Dilawarpur	925	1·285	...
		Milkiat Sircar	1,923	3·3	...
		Bakapur	9,839	15·239	...
		Dilmurad	1,141	1·501	...
		Zangipur	5,334	8·214	...
		Sarki	3,773	5·573	...
		Baluchabad	765	1·125	...
		Korar	875	1·235	...
		Mirpur	6,978	10·578	...
		Jangan	2,291	3·371	...
		Karampur	5,770	9·10	...
		Keti Sadhuja	6,001	9·241	...
		Total Sukkur Division...	285,519	446·79	7
Naushahro	Shikarpur	Dosu	4,033	6·193	...
		Keti Ubhuro	5,575	8·455	...
		Kanuri...	3,630	5·430	...
		Sharifpur	1,027	1·387	...
		Bahman	1,547	2·267	...
		Naoabad	2,205	3·285	...
		Phati Bilawal	711	1·71	...
		Amrote	11,684	18·164	...
		Muso	4,755	7·275	...
		Kasimshah	2,056	3·136	...
		Nari	1,419	2·139	...
		Dangar	3,685	5·485	...
		Soi	5,108	7·628	...
		Budo Dero	1,555	2·275	...
		Ghangherko	5,840	9·89	...
		Gaji Dero	4,333	6·493	...
		Garhi Yasin	25,328	39·368	...

Hyderabad,
12th October 1893.

...	8,129	12·449	
...	1,725	2·445	
...	3,150	4·590	
...	7,251	11·211	
...	1,654	2·374	
...	2,388	3·468	
...	972	1·332	
...	1,376	2·96	
...	3,529	5·329	
...	2,064	3·144	
...	4,340	6·500	
...	8,985	14·250	
...	1,217	1·577	
...	7,641	11·501	
...	11,215	17·335	
...	587	·587	
...	3,407	5·207	
..	880	1·240	
...	1,543	2·263	
..	8,216	12·536	
...	22,551	35·151	
...	1,753	2·473	
...	5,014	7·534	
...	4,200	6·360	
...	12,683	19·523	No. 3,432 of 12th May 1893.
...	2,648	4·88	
...	2,252	3·332	
...	1,417	2·137	
...	2,839	4·279	
...	5,604	8·484	
...	2,306	3·386	
...	3,118	4·558	
...	13,433	20·633	
...	6,866	10·466	
...	2,564	4·4	
...	11,857	18·337	
...	12,104	18·584	
...	13,884	21·444	
...	905	1·265	
...	3,614	5·414	
...	2,096	3·176	
...	17,342	27·62	
...	6,616	10·216	
...	985	1·345	
...	991	1·351	
...	925	1·285	
...	1,923	3·3	
...	9,839	15·239	
...	1,141	1·501	
...	5,334	8·214	
...	3,773	5·573	
...	765	1·125	
...	875	1·235	
...	6,978	10·578	
...	2,231	3·371	
...	5,770	9·10	
...	6,001	9·241	
...	285,526	446·86	
...	4,033	6·193	
...	5,575	8·455	
...	3,630	5·430	
...	1,027	1·387	
...	1,547	2·267	
...	2,205	3·285	
...	711	1·71	
...	11,684	18·164	
...	4,755	7·275	
...	2,056	3·136	
...	1,419	2·139	
...	3,685	5·485	
...	5,108	7·628	
..	1,555	2·275	
...	5,849	9·89	
95	4,238	6·398	Commissioner's No. 2238 of 14th June 1893, transferred to Public Works Department.
...	25,328	39·368	

Naushahro—*continued.*	Hyderabad ...	Bhour ...	10,539	16·299	...	
		Mohbatdero ...	8,045	12·365	...	
		Santia ...	3,390	5·190	...	
		Kamaldero ...	1,365	2·85	...	
		Bhorti ...	10,790	16·550	...	
		Dalipota ...	867	1·227	...	
		Khairodero ...	13,073	20·273	...	
		Lalia ...	4,192	6·352	...	
	Karachi ...	Karampur ...	2,924	4·364	...	
		Bagban ...	1,947	3·27	...	
		Bhau ...	1,138	1·498	...	
		Phaka ...	2,207	3·287	...	
		Kalubori ...	748	1·108	...	
		Pipri ...	925	1·285	...	
		Total Naushahro Division ...	146,650	229·90	...	
Hyderabad ...	Hyderabad ...	Lakhat ...	6,380	9·620	...	
		Nasri ...	1,556	2·276	...	
		Mad ...	2,642	4·82	...	
		Mehrabpur ...	3,338	5·138	...	
		Mari ...	14,753	23·33	...	
		Pai ...	5,130	8·10	...	
		Koti Jurio ...	2,125	3·205	...	
		Rano ...	1,627	2·347	...	
		Nurketi ...	4,061	6·221	...	
		Bhanote ...	841	1·201	...	
		Khanote ...	8,666	13·346	...	
		Khebrani ...	760	1·120	...	
		Sekhat ...	2,080	3·160	...	
		Jakhri ...	1,926	3·6	...	
		Matiari ...	5,354	8·234	...	
		Ghali ...	3,041	4·481	...	
		Miani ...	4,917	7·437	...	
		Kathri ...	756	1·116	...	
		Gundi ...	2,150	3·230	...	
		Mahamed Khan ...	181	·181	...	
		Jamshoro ...	292	·292	...	
		Shahmakai ...	411	·411	...	
		Koti Mehrani ...	5,523	8·403	...	
	Karachi ...	Gidarji ...	855	1·215	...	
		Butho ...	7,748	12·68	...	
		Manjhand ...	1,539	2·259	...	
		Mirpur ...	10,705	16·465	...	
		Ghag ...	1,296	2·16	...	
		Karokho ...	1,701	2·421	...	
		Total Hyderabad Division...	102,354	159·594	...	
Jerruck ...	Karachi ...	Viran ...	9,142	14·182	...	
		Sonda ...	2,114	3·194	...	
		Hillaya ...	2,898	4·338	...	
		Lalang ...	5,151	8·31	...	
		Shah Lanko ...	1,690	2·410	...	
		Garko ...	4,079	6·239	...	
		Kacho Shah Lanko ...	313	·313	...	
		,, Ali Ganj ...	715	1·75	...	
		,, Bao Purandas ...	6,413	10·13	...	
		,, Bijora ...	5,890	9·130	...	
		,, Chachh ...	3,362	5·162	...	
		Malir ...	24	·24	...	
		Kacho Alibahar ...	3,000	4·440	...	
		,, Surjani ...	3,410	5·210	...	
		,, Kot Almo ...	2,335	3·415	...	
		Penah ...	6,109	9·409	...	
		Susati ...	30	·30	...	
		Khirsur ...	1,380	2·100	...	
		Huderani ...	5,511	8·391	...	
		Surjani ...	1,364	2·84	...	
		Ganj ...	2,228	3·308	...	
		Hazari ...	2,483	3·563	...	
		Makbulo ...	496	·496	...	
		Loikpur ...	7,406	11·366	...	
		Khudi ...	4,500	7·20	...	
		Phatah ...	258	·258	...	
		Mulchand ...	5,454	8·334	...	
	Hyderabad ...	Husri ...	420	·420	...	
		Khatro ...	416	·416	...	
		Khathar ...	2,975	4·415	...	
		Katiar ...	952	1·312	...	
		Khirdahi ...	290	·290	...	
		Tikhur ...	1,709	2·429	...	
		Khokhar ...	1,553	2·276	...	
		Bud ka Takar ...	975	1·335	...	
		Total Jerruck Division...	97,117	151·477	...	
		Grand Total of the Sind Circle ...	631,640	986·600		7

No. 46.

SIND CIRCLE.

Forests, 1892-93.

Excluded or transferred to other heads.	Area on 30th June 1893.		No. and date of Notification of addition or transfer.	REMARKS.
Acres.	Acres.	Equivalent in square miles.		
...	10,539	16·299		
...	8,045	12·365		
...	3,390	5·190		
...	1,365	2·85		
...	10,790	16·550		
...	807	1·227		
...	13,073	20·273		
...	4,192	6·352		
...	2,924	4·364		
...	1,947	3·27		
...	1,138	1·498		
...	2,207	3·287		
...	748	1·108		
...	925	1·285		
95	146,555	228·635		
...	6,380	9·620		
...	1,556	2·276		
...	2,642	4·82		
...	3,338	5·138		
...	14,753	23·33		
...	5,130	8·10		
...	2,125	3·205		
...	1,627	2·347		
...	4,061	6·221		
...	841	1·201		
...	8,666	13·346		
...	760	1·120		
...	2,080	3·160		
...	1,926	3·6		
...	5,354	8·234		
...	3,041	4·481		
...	4,917	7·437		
...	756	1·116		
...	2,159	3·230		
...	181	·181		
...	292	·292	No. 9065 of 17th November 1892.	
97	314	·314	No. 1951 of 22nd March 1892.	
...	5,523	8·403	No. 2479 of 10th April 1893.	
...	855	1·215		
...	7,748	12·68		
...	1,539	2·259		
...	10,705	16·465		
...	1,296	2·16		
...	1,701	2·421		
97	102,257	159·497		
...	9,142	14·182		
...	2,114	3·194		
...	2,898	4·338		
...	5,151	8·31		
...	1,690	2·410		
...	4,079	6·239		
...	313	·313		
...	715	1·75		
...	6,413	10·13		
...	5,890	9·130		
...	3,362	5·162		
...	24	·24		
...	3,000	4·440		
...	3,410	5·210		
...	2,335	3·415		
...	6,169	9·409		
...	39	·39		
...	1,380	2·100		
...	5,511	8·391		
...	1,364	2·84		
...	2,228	3·303		
...	2,483	3·563		
...	496	·496		
7,406	...	...	No. 8013 of 10th October 1892.	
...	4,500	7·20		
...	258	·258		
...	5,454	8·334		
...	420	·420		
...	416	·416		
...	2,975	4·415		
...	952	1·312		
...	290	·290		
...	1,709	2·429		
...	1,556	2·276		
...	975	1·335		
7,406	89,711	140·111		
7,598	624,049	975·49		

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

ANNUAL FORM No. 46 A.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.—AREA OF PROTECTED FORESTS, 1892-93.

Division or Range.	Civil District or Territory.	Name of Forest.	Area on 1st April 189 .		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1893.		No. and date of Notification of addition or transfer.	Remarks.
			Acres.	Equivalent in square miles.	Acres.	Acres.	Acres.	Equivalent in square miles.		
				M. A.				M. A.		
Sukkur	Upper Sind Frontier ...	Macaulay	183	0 183	...	...	183	0 183		
		Dickinson	585	0 585	...	...	585	0 585		
		Total ...	768	1 128	...	...	768	1 128		
Jerruck	Karachi	Kacho Sonda	117	0 117	...	...	117	0 117		
Naushahro ...	Karachi	Karampur ..... Shahgarh Dhadon	2,347	3,427	...	...	2,347	3,427		
		Total ...	3,232	5 32	...	...	3,232	5 32		

Conservator's Office,
Hyderabad, 12th October 1893.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 52.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.

Register of breaches of Forest Rules during 1892-93.

Forest Division and Civil District.		Cases pending from 1891-92.	New Cases of the Year.					Total cases.	Disposed of during the Year.						Cases pending at close of year.
			Injury to forest by fire.	Unauthorised felling or appropriation of wood and minor forest produce.	Grazing without permission or in tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
									Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
Sukkur	A	6	...	11	5	2	18	24	7	27	13	41	20	68	4
	B	...	...	175	1,199	1	1,375	1,375	1,375	1,381	...	...	1,375	1,381	...
	C	...	..	...	...	..	...	..	...	...	...	...	...	...	...
	Total .	6	...	186	1,204	3	1,393	1,399	1,382	1,408	13	41	1,395	1,449	4
Naushahro ...	A	3	1	9	2	1	13	16	7	19	5	8	12	27	4
	B	..		54	163	...	217	217	217	217	..	...	217	217	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	3	1	63	165	1	230	233	224	236	5	8	229	244	4
Hyderabad ...	A	2	1	4	8	2	15	17	10	21	5	15	15	36	2
	B	...	...	101	243	..	344	344	344	344	...	...	344	344	...
	C	...	1	8	...	...	4	4	...	...	...	..	...	...	...
	Total ...	2	2	109	251	2	363	365	354	365	5	15	359	380	2
Jerruck	A	...	...	4	...	...	4	4	1	1	3	3	4	4	...
	B	...	...	34	456	1	491	491	491	491	...	...	491	491	...
	C	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ...	..	...	38	456	1	495	495	492	492	3	3	495	495	...
Grand Total...	A	11	2	28	15	5	50	61	25	68	26	67	51	135	10
	B	...	..	364	2,061	2	2,427	2,427	2,427	2,433	...	...	2,427	2,433	...
	C	...	1	3	...	...	4	4	...	...	...	...	...	...	...

N. B.—A means cases taken into Court.
B means cases disposed of under Section 67 of the Indian Forest Act, 1878.
C means undetected cases.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

Hyderabad,
12th October 1893.

FORM No. 53.

FOREST DEPARTMENT, SIND CIRCLE.

Area of Forest tracts protected from fire during the dry season of 1892, to accompany report for 1892-93.

Divisions.	Forest tracts.	Year in which commenced.	Area actually protected up to 30th June 1892.	During dry season, 1893.			Cost during the season.	Remarks.
				Area attempted to be protected.	Failure.	Area actually protected.		
			Acres.	Acres.	Acres.	Acres.		
Sukkur	Mirpur	Not known ...	42,386	36,578	15	36,563		
	Kashmore		.....	6,616	30	6,586		
	Ghotki		25,802	26,039	464	25,575		
	Sadhuja		70,674	73,009	259	72,750		
	Abad		51,729	51,749	2	51,747		
	Sukkur		25,842	25,988	503	25,485		
	Shikarpur	1887-88	23,957	23,957	.....	23,957		
	Jacobabad	1885-86	15,431	15,431	.....	15,431		
	Thul	1885-86	26,927	26,927	.....	26,927		
Naushahro	Bakrani	Not known ...	18,098	17,798	2	17,796		
	Kandiaro		17,887	17,887	280	17,607		
	Sehwan		600	600	.....	600		
Hyderabad	Rano	Do.	10,590	10,720	50	10,670		
	Unarpur		12,600	13,050	40	13,010		
	Miani		3,833	3,833	.....	3,833		
	Kotri		500	500	.....	500		
Jerruck	Viran	Do.	3,829	3,829	3	3,826		
	Shahbandar		7,376	7,376	581	6,795		
	Mulchand		6,013	3,547	10	3,537		
	Katiar		1,603	1,603	.....	1,603		
	Total ...	.....	365,677	367,037	2,239	364,798		

Hyderabad,
12th October 1893.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 56.

FORM No. 56.

FOREST DEPARTMENT, SIND CIRCLE.—AREA OF PLANTATIONS, 1892-93.

Divisions.	Names of Plantations.	Area in Acres				Receipts of the year.	Charges of the year.	Remarks.
		On 1st April 1892.	Added during the year.	Excluded during the year.	Area on 30th June 1893.			
	Regular plantation.							
Sukkur ...	Aliwahan Garden	20	...	20	...	10	105	Entirely washed away by the river.
	Rahuja Nursery	10	...	...	10	81	675	
	Shah Plantation	7	...	...	7	...	...	
	Sadhuja do.	34	...	...	34	...	105	
Hyderabad...	Devi-Devi Plantation	13	...	...	13	275	250	
	Bamboo do	13	...	...	13	...	...	
	Miani Bungalow, Mango and Monument Gardens ...	12	...	...	12	920	909	
Jerruck ...	Malir Nursery	24	...	...	24	50	105	
	Sonda do.	5	...	...	5	120	...	
	Total Regular Plantations ..	138	...	20	118	1,456	2,155	
	Cultural Operations.							
Sukkur ...	Abad	695	...	...	695	...	...	
	Bindi Dhareja	754	780	...	1,534	...	...	
	Shah	68	150	...	218	...	...	
	Mohro Mari	45	320	...	365	...	...	
	Khia Bindi	22	115	...	137	...	...	
	Kadrapur	360	275	...	635	...	..	
	Rohri	1,018	...	1,018	...	...	...	1,018 Acres opened to grazing.
	Syadpur	16	...	...	16	...	...	
	Saliani	28	...	28	...	...	...	28 Do. do.
	Sultanpur	23	...	23	...	...	...	23 Do. do.
	Azizpur	20	...	20	...	...	...	20 Do. eroded by river.

	Ding	...	...	...	...	10	...		10	...	...	...	10 Do. do.
	Adilpur	...	...	...	...	20	...	...		20	...	...	
	Raoti	...	...	...	...	30	...	...		30	...	...	
	Jehanpur	...	...	...	...	...	6	...		6	...	...	
	Sarhad	...	...	...	...	...	8	...		8	...	...	
	Mirpur	...	...	...	...	...	6	...		6	...	...	
	Gublo	...	...	...	...	5	...	...		5	...	...	
	Garhi Halim	...	...	...	...	10	...	...		10	...	...	
	Lakhi	...	...	...	...	3	...	...		3	...	...	
	Kote Sultan	...	...	...	...	500	...	...		500	...	...	
	Andaldal	...	...	...	...	28	...	...		28	...	...	
	Bagirji	...	...	...	...	3	...	...		3	...	...	
	Keti Bagirji	...	...	...	...	50	...	...		50	...	...	
				Total	...	3,708	1,660	1,099		4,269	...	...	
Nushahro ...	Mohbatdero	...	...	...	...	590	260	...		850	...	...	
	Bhour	...	...	...	...	1,634	...	...		1,634	...	...	
	Kamaldero	...	...	...	...	100	...	...		100	...	...	
	Ghorti	...	...	...	...	50	320	...		370	...	...	
	Samtia	...	...	...	...	...	180	...		180	...	...	
	Dalipota	...	...	...	...	125	...	...		125	...	...	
	Karampur	...	...	...	...	25	20	...		45	...	...	
	Phaka	...	...	...	...	250	5	...		255	...	...	
				Carried forward ...		2,774	785	...		3,359	...	...	

				Brought over...	2,774	785	...	3,559	...	...
Naushahro...	Pipri	...	...	...	...	267	...	...	267	...	...
	Baghban	...	...	...	...	17	5	...	22	...	...
	Kalubori	...	...	...	...	20	...	...	20	...	...
	Bhan	...	...	...	...	100	...	...	100	...	...
	Khairodero	...	...	...	..	...	320	...	320	...	...
	Lalia	...	...	...	...	...	30	...	30	...	...
	Sharifpur	...	...	...	...	45	...	...	45	...	...
	Amrote	...	...	...	...	110	...	...	110	...	...
	Muso	...	...	...	...	90	...	...	90	...	...
	Bahman	...	...	...	...	30	...	...	30	...	...
	Kota Ubhuro	...	...	...	...	3	...	...	3	...	...
	Dosi	...	...	...	...	...	147	...	147	...	...
	Gajidero	...	...	...	...	15	15	...	30	...	...
	Nari...	...	...	...	...	...	12	...	12	...	...
	Kasimshah	...	...	...	...	...	11	...	11	...	...
	Soi ...	...	...	...	...	...	15	...	15	...	...
	Budodero	...	...	...	...	...	14	...	14	...	...
	Dangar	...	...	...	...	...	15	...	15	...	...
				Total	...	3,471	1,360	...	4,840	...	...
Hyderabad...	Nasri	...	...	...	...	160	480	...	640	...	...
	Mad	...	...	...	...	646	320	...	966	...	...
	Mehrabpur	...	...	...	...	480	80	...	560	...	...
	Mavi	...	...	...	...	1,536	320	...	1,856	...	...

	Keti Jurio	310	...	...	310	...	...			
	Rano	200	50	...	250	...	...			
	Nurketi	435	20	...	455	...	...			
	Butho	2,275	480	...	2,755	...	...			
	Manjhand	158	250	160	408	...	...	160 acres	opened to grazing.	
	Umarpur	1,465	390	...	1,855	...	...			
	Ghagh	160	20	60	180	...	...	60	do.	do.
	Khanote	603	400	...	943	...	...			
	Sekhat	20	30	500	50	...	...	500	do.	do.
	Matiari and Jakhri	1,870	220	...	1,590	...	...			
	Mani	885	125	...	1,010	...	...			
	Muhammad Khan	181	...	...	181	...	...			
	Kathri	50	10	...	60	...	...			
	Ghali	...	10	...	10	...	...			
	Shah Makai	43	...	...	43	...	...			
	Jamshoro	23	...	...	23	...	...			
	Total ...	11,500	3,365	720	14,145	...	...			
Jerruck ...	Mulchand	277	...	277	...	...	...	277	do.	do.
	Khadi	40	31	...	71	...	...			
	Penah	13	...	13	...	...	...	13	do.	do.
	Laikpur	147	...	147	...	...	...	147 acres disforested.		
	Viran	765	...	598	167	...	...	598 acres opened to grazing.		
	Garko	...	...	...	...	...	...			
	Shah Louko	266	...	...	266	...	...			
	Sonda	200	40	...	240	...	...			
	Hilnya	228	...	228	...	...	...	228	do.	do.
	Khathar	60	...	...	60	...	...			
	Katiar	24	...	...	24	...	...			
	Bul-ka-Takur	107	...	...	107	...	...			
	Lalang	22	...	22	...	...	...	22	do.	do.
	Khokhur	...	40	...	40	...	...			
	Total ...	2,169	111	1,285	995	...	...			
	Total cultural operations... ..	20,848	6,505	3,104	24,249	...	...			
	Grand Total of regular and cultural operations. .	20,986	6,505	3,121	24,367	...	...			

Hyderabad,
12th October 1893.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 57.

FOREST DEPARTMENT, SIND CIRCLE.—OUTTURN (IN CUBIC FEET) OF TIMBER AND FIREWOOD DURING THE FOREST YEAR 1892-93 AND AGENCY OF EXPLOITATION.

Divisions.	Timber in the rough logs.					Timber in the rough poles.					Sawn or squared timber.					Miscellaneous.					Fuel.					Total.
	Government.	Purchasers.	Free grant.	Right-holders.	Total.	Government.	Purchasers.	Free grant.	Right-holders.	Total.	Government.	Purchasers.	Free grant.	Right-holders.	Total.	Government.	Purchasers.	Free grant.	Right-holders.	Total.	Government.	Purchasers.	Free grant.	Right-holders.	Total.	Out-turn.
I.—Reserved Forests.																									
Sukkur	23,183	1,741	1,822	...	26,746	8,865	173	5	...	9,043	...	...	...	...	...	29,937	7,430	3,140	...	40,507	46,95,811	32,27,975	337	...	79,24,123	80,00,419
Naushahro	752	2,205	526	...	3,483	4,638	10,103	900	...	15,641	4,391	...	...	...	4,391	...	358	45	...	403	28,92,972	4,49,708	...	...	33,42,680	33,66,598
Hyderabad	952	1,827	...	...	2,779	70,776	11,539	487	...	82,802	19,081	2,000	543	...	21,624	2	270	...	..	272	48,68,576	3,96,076	608	...	52,65,260	53,72,737
Jerruck	18,452	1,461	473	...	20,386	5,259	5,948	250	...	11,457	10,800	...	...	...	10,800	...	203	3	..	206	31,29,658	24,833	...	...	31,54,491	31,97,340
Total ...	43,339	7,234	2,821	...	53,394	89,538	27,763	1,642	...	1,18,943	34,272	2,000	543	...	36,815	29,939	8,261	3,188	...	41,388	1,55,87,017	40,98,592	945	...	1,96,86,554	1,99,37,094
II.—Protected Forests.																									
Sukkur	...	95	...	...	95	...	15	...	...	15	...	...	...	...	...	145	...	...	...	145	...	...	...	...	...	255

Hyderabad,
12th October 1893.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 58.

FORM No. 58.

FOREST DEPARTMENT, SIND CIRCLE.—Outturn of minor Forest produce.

Divisions.	Description of produce.	Produce removed or utilised										Remarks.
		By Government agency.		By purchasers.		By free grants.		By right-holders.		Total.		
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
			Rs.		Rs.		Rs.		Rs.		Rs.	
Sukkur	Ber fruit, &c.	Contract...	10	...	...	...	...	...	...	...	10	
	Babul seed... ... ...Maunds.	5	3	...	...	...	...	...	...	Mds. 5	3	
	Babul pods...	...	...	Contract...	757	...	...	...	...	Contract...	757	
	Munj and reed	...	...	Do. ...	924	...	...	...	...	Do. ...	924	
	Reed grass ... ...Bundles.	...	...	Bdles. 177	15	...	...	...	...	Bdles. 177	15	
	Kanh grass... ... ... Do.	...	...	Do. 180	14	Bdles. 711	44	...	...	Do. 891	58	
	Do. ... ...Cartloads.	...	...	Cart-loads. 14	9	...	...	...	...	Cart-loads. 14	9	
	Dabh grass... ... ...Maunds.	...	...	Mds. 4,357	272	...	...	...	...	Mds. 4,357	272	
	Kandi Branches ... ...Cartloads.	...	...	Cart-loads. 384	48	...	...	...	...	Cart-loads. 384	48	
	Compensation for damaging branches of trees	...	...	...	5	...	...	...	...	...	5	
	Jháu brushwood ... ...Bundles.	...	...	Bdles. 1,323	84	Bdles. 838	52	...	...	Bdles. 2,161	136	
	Tooth brushes ... ...Seers.	...	...	Seers. 5	1	...	...	...	...	Seers. 5	1	
	Grazing fees	...	...	...	20,041	...	...	...	...	...	20,041	
	Total... ...	...	13	...	22,170	...	96	...	...	...	22,279	
Naushahro...	Babul pods...	...	...	Contract...	2,717	...	...	...	...	Contract...	2,717	
	Ber fruit	...	...	Do. ...	16	...	...	...	...	Do. ...	16	
	Sar grass	...	...	Do. ...	1,099	...	...	...	...	Do. ...	1,099	
	Do. ... ...Bundles.	...	...	Bdles. 226	15	...	...	...	...	Bdles. 226	15	
	Jháu brushwood	...	...	Do. 1,039	66	Bdles. 30	2	...	...	Do. 1,069	68	
	Branches of trees	...	...	...	24	...	...	...	...	...	24	
	Babul leaves ... ...Maunds.	...	...	...	7	...	...	...	...	...	7	
	Grazing fees	...	...	...	11,819	...	...	...	...	...	11,819	
	Total... ...	...	...	...	15,763	...	2	...	...	...	15,765	

Hyderabad	Babul bark	...	...	...Maunds.	Mds.	1,129		524	Mds.	72	9	...		...	...	Mds.	1,201	533
	Tooth-brushes	...	...	... Do.		...		...	Do.	94	35	...		...	...	Do.	94	35
	Brushwood	...	...	...Bundles.		...		...	Bdles.	1,908	119	Bdles.	292	18	...	Bdles.	2,200	137
	Kanh grass	...	...	... Do.		...		...	Do.	1,259	79	Do.	16	1	...	Do.	1,275	80
	Do.	...	...	...Contract		...		...	Contract		218	...		...	...	Contract		218
	Compensation on account for damage done to forests		...	... ...		...		...		...	239	...		...	...		...	239
	Lac	...	...	...Maunds.		...		...	Mds.	12	25	...		...	...	Mds.	12	25
	Do.	...	...	...Contract		...		...	Contract		8,067	...		...	...	Contract		8,067
	Babul pods	...	...	... ...		...		...	Do.	...	12,667	...		...	...	Do.	...	12,667
	Mangoes	...	...	... ...		...		...	Do.	...	920	...		...	...	Do.	...	920
	Kinro	...	...	... ...		...		...	Do.	...	28	...		...	...	Do.	...	28
	Sakun galls	...	...	... ...		...		...	Do.	...	15	...		...	...	Do.	...	15
	Honey	...	...	... ...		...		...		...	12	...		...	...		...	12
	Grazing fees	...	...	... ...		...		...		...	13,344	...		...	...		...	13,344
			Total	...		...		524		...	35,777	...		19	...		...	36,320
Jerruck	Jhâu brushwood	...	...	...Bundles.		...		...	Bdles.	1,440	90	...		...	...	Bdles.	1,440	90
	Potash	...	...	...Maunds.		...		...	Mds.	16	4	...		...	...	Mds.	16	4
	Do.	...	...	...Contract		...		...	Contract		29	...		...	...	Contract		29
	Kanh grass	...	...	... Do.		...		...	Do.	...	135	...		...	...	Do.	...	135
	Do.	...	...	...Bundles.		...		...	Bdles.	48	3	...		...	...	Bdles.	48	3
	Grass	...	...	...Contract		...		...	Contract		50	...		...	...	Contract		50
	Fruit	...	...	... ...		...		...	Do.	...	277	...		...	...	Do.	...	277
	Lac	...	...	... ...		...		...	Do.	...	596	...		...	...	Do.	...	596
	Babul pods	...	...	... ...		...		...	Do.	...	3,319	...		...	...	Do.	...	3,319
	Compensation	...	...	... ...		...		...		...	15	...		...	...		...	15
	Grazing fees	...	...	... ...		...		...		...	15,484	...		...	...		...	15,484
			Total	...		...		...		...	20,002	...		...	...		...	20,002

Hyderabad,
12th October, 1893.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 59.

Forest Department, Sind Circle.

Account of timber and other produce cut or collected by Government agency and brought to Sale Depôts or sold locally during the year 1892-93.

	Particulars.	No. or quantity.	Cubic feet.	Total of each head. Number or quantity.	Total of each head. Cubic feet.
	TIMBER.				
Sukkur Division.	Balance at commencement of the year.				
	Sale Depôts.				
	Bahan logs and dasas	425	2,150		
	Babul do. do.	235	695		
	Tali do. do.	401	2,444		
	Bahan posts	1,004			
	Tali do.	52			
	Babul do.	284			
	Bahan rafters	13,505			
	Babul cart axles	183		16,092	5,289
	Forest Depôts.				
	Bahan posts	900	...		
	Bahan rafters	6,512	...	7,412	...
Naushahro Division.	*Sale Depôts.*				
	Babul logs	6	49		
	Bahan posts	2	...	8	49
	Forest Depôts.				
	Bahan logs...	43	391		
	Bahan do.	1	3		
	Lai do.	1	2		
	Kandi do.	1	4	46	400

Particulars.	No. or quantity.	Cubic feet.	Total of each head. No. or quantity.	Total of each head. Cubic feet.
TIMBER.				
Removed by purchasers from Depôts.				
Babul logs and dasas	3,123	35,172		
Bahan logs and dasas	2,111	10,972		
Tali logs do. do.	1,007	7,120		
Babul sleepers	305	...		
Babul posts	928	...		
Babul rafters	2,200	...		
Babul bolsters	1,552	...		
Babul props	9,134	...		
Babul pieces	3	...		
Babul outer slabs	4	...		
Babul cart axles	188	...		
Bahan posts	19,234	...		
Bahan rafters	183,754	...		
Jhau posts	1,700	...		
Jhau rafters	8,019	...		
Tali posts	33	...	233,295	53,264
Sold Locally.				
Bahan, babul and lai logs	211	1,535		
Do. do. do. pieces	298	...		
Babul logs	149	1,371		
Bahan do.	3	4		

			Sale Depôts.											
Hyderabad Division.	Bahan logs ...	...	...	...	1	7			Babul sleepers	...	...	...	621	...		
	Babul logs ...	...	...	...	7	65			Babul props	...	...	...	4,024	....		
	Babul log ...	...	...	...	1	...			Bhan dasas	...	...	...	300	949		
	Babul rafters	...	...	...	3,756	...			Bahan posts	...	...	...	824	...		
	Bahan posts	...	...	...	2,048	...			Bahan rafters	...	...	...	1,616	...		
	Bahan rafters	...	...	...	19,100	...			Jhau rafters	...	...	...	60	...	8,106	3,859
	Jhau posts ...	...	...	...	1,700	...										
	Jhau rafters	...	...	...	22,800	...			USED BY DEPARTMENT.							
	Babul outer slabs	...	...	...	17	...										
	Babul planks	...	...	...	1	...			*Sale Depôts.*							
	Babul sleepers	...	...	...	64	...										
							49,495	72	Babul log	...	...	...	1	10		
			Forest Depôts.						Jhau rafters	...	...	...	157	...		
															158	10
	Babul sleepers	...	...	..	91	...			*Transferred from Forest to Sale Depôts.*							
	Babul pieces	...	...	...	7	...										
	Babul rafters	...	...	...	206	...			Bahan posts	...	...	...	900	...		
							304	...	Bahan rafters	...	...	...	6,512	...		
															7,412	...
			Sale Depôts.													
Jerrick Division.	Babul logs	...	...	...	15	297			BALANCE AT CLOSE OF THE YEAR.							
							15	297								
			Forests Depôts.						*Sale Depôts.*							
	Babul logs ...	...	...	...	19	38										
							19	38	Babul logs and dasas	...	...	...	932	5,869		
									Bahan logs and dasas	...	...	...	1,405	7,223		
	Total balance	...	...	...	...	...	73,391	6,145	Tali do. do.	...	...	...	60	393		

Received from Forests in Sale Depôts.

Babul logs and dasas	4,146	41,670			
Bahan do. do.	3,487	16,009			
Tali do.	663	5,071			
Babul sleepers	700	...			
Babul posts	1,076	...			
Babul bolsters	1,565	...			
Babul props	14,119	...			
Babul pieces	3	...			
Babul outer slabs	24	...			
Babul cart axles	1,141	...			
Bahan posts	20,198	...			
Bahan rafters	186,067	...			
Jhau rafters	3,435	...			
			236,624	62,750	

Received in Forest Depôts.

Bahan, babul and lai logs	211	1,535			
Do. do. do. pieces	298	...			
Babul logs	146	1,064			
Bahan logs	3	4			
Babul sleepers	536	...			
Babul props	4,024	...			
Bahan dasas	600	949			
Bahan posts	824	...			
Bahan rafters	8,116	...			

Sukkur Division.	Tali posts	19	...			
	Babul do.	431	...			
	Bhan posts	3,368	...			
	Bhan rafters	15,618	...			
	Jhau do.	1,459	...			
	Babul carts axles	1,136	...		24,828	13,487
	Forest Depôts.					
	Bhan rafters	6,500	...			
	Bhan dasas	300	...		6,800	...
	Sale Depôts.					
Naushahro Division.	Bahan logs	2	13		2	13
	Forest Depôts.					
	Babul logs	14	84			
	Bahan do.	1	3			
	Lai log	1	2			
	Kandi do.	1	4		17	93
	Sale Depôts.					
Division.	Babul logs	129	951			
	Babul log	1	...			
	Bahan log	1	7			
	Babul dasas	218	725			

Jhau do, ...	...	60	...	14,818	3,552	Hyderabad	Babul sleepers		459	...				
							Babul bolster		1	...				
							Babul props...		4,985	...				
							Babul, outer slabs		37	...				
							Babul post		1	..				
							Babul rafters...		1,556	...				
							Bahan posts		650	...				
							Bhan rafters		10,200	...				
							Jhau do.		16,600	...				
							Babul plank		1	...			43,939	1,033
							Forest Depôts.							
							Babul sleepers		6	...				
							Babul pieces		7	...				
							Babul rafters...		206	...				
							Babul logs		26	...			245	...
							Sale Depôts.							
						Jerruck Division.	Babul bolsters		12	...			12	...
							Forest Depôts.							
							Babul logs		19	38			19	
Total Timber ...				324,833	72,447	Total Timber ...							324,833	72,447

FIREWOOD AND CHARCOAL.

BALANCE AT COMMENCEMENT OF THE YEAR.

Sukkur Division.	*Sale Depôts.*						
	Firewood	...	...	Mds.	32,131	...	
	Locomotive fuel	...	...	C. ft.	...	10,921	32,131 / 10,921
	Forest Depôts.						
	Firewood	...	...	Mds.	6,706	...	
	Locomotive fuel	...	...	C. ft.	...	3,202	6,706 / 3,202
Naushahro Division.	*Sale Depôts.*						
	Firewood	...	...	Mds.	300	...	300 / ...
	Forest Depôts.						
	Firewood	...	...	Mds.	5,539	...	
	Locomotive fuel	...	...	C. ft.	...	1,00,600	
	Babul seed	...	...	Mds.	9	...	5,548 / 1,00,600
Hyderabad Division.	*Sale Depôts.*						
	Firewood	...	...	Mds.	16,028	...	
	Locomotive fuel	...	...	C. ft.	...	1,250	
	Charcoal	...	...	Mds.	420	...	16,448 / 1,250
	Forest Depôts.						
	Firewood	...	...	Mds.	28,291	...	
	Locomotive fuel	...	...	C. ft.	...	19,303	28,291 / 19,303

FIREWOOD AND CHARCOAL.

	Removed by purchasers from Sale Depôts.						
	Firewood	...	...	Mds.	350,176	...	
	Locomotive fuel	...	...	C. ft.	...	1,024,313	
	Charcoal	...	...	Mds.	3,900	...	
	Babul bark	...	...	,,	1,129	..	355,205 / 1,024,313
10,921	*Sold Locally.*						
	Firewood	...	...	Mds.	98,852	...	
	Locomotive fuel	...	...	C. ft.	...	9,070,569	
	Charcoal	...	...	Mds.	55,622	...	
3,202	Babul and Sisso seed	...	...	,,	351	...	154,825 / 9,070,569
	Transferred to other Sale Depôts.						
...	Firewood	...	...	Mds.	3,179	...	3,179
	WRITTEN OFF. *Sale Depôts.*						
	Firewood	...	...	Mds.	1,628	...	1,628
1,00,600	*Forest Depôts.*						
	Firewood	...	...	Mds.	5,818	...	
	Charcoal	...	...	,,	186	...	
	Locomotive fuel	...	...	C. ft.	...	38,470	
	Babul seed	...	...	Mds.	60	...	6,064 / 38,470
1,250	*Transferred to Sale Depôts.*						
	Firewood	...	...	Mds.	25,582	...	
	Locomotive fuel	...	...	C. ft.	...	5,567	25,582 / 5,567
	Used by Department.						
	Babul seed	...	...	Mds.	408	...	
	Kandi seed	...	...	,,	9	...	417
19,303							

											BALANCE AT CLOSE OF THE YEAR.				
											Sale Depôts.				
Jerruck Division.	*Sale Depôts.*									Sukkur Division.					
	Firewood	...	...	...	Mds.	1,250	...				Firewood	Mds.	7,191	...	
	Charcoal	...	...	...	„	13	...	1,263	...		Locomotive fuel	C. ft.	...	47,501	7,191 47,501
	Forest Depôts.										*Forest Depôts.*				
	Firewood	...	...	...	Mds.	14,362	...				Firewood	Mds.	13,181	...	
	Locomotive fuel		...	...	C. ft.	...	1,03,026				Locomotive fuel	C. ft.	...	3,24,727	
	Charcoal	...	...	...	Mds.	1,497	...	15,859	1,03,026		Babul and Sissoo seed ...	Mds.	92	...	13,273 3,24,727
				Total Balance...				1,06,546	2,38,302		*Sale Depôts.*				
	Received from Forest in Sale Depôts.									Naushahro Division.	Firewood	Mds.	...	...	... ...
	Firewood ...	...	...	...	Mds.	3,33,783	...				*Forest Depôts.*				
	Locomotive fuel	...	...	...	C. ft.	...	10,65,911				Firewood	Mds.	4,696	...	
	Charcoal ...	...	...	...	Mds.	3,747	...				Babul seed	„	159	...	4,855 ...
	Babul bark	...	...	...	„	1,129	...	3,43,659	10,65,911		*Sale Depôts.*				
	Received in Forest Depôts.									Hyderabad Division.	Firewood	Mds.	28,497	...	
	Firewood ...	...	...	...	Mds.	1,18,256	...				Locomotive fuel	C. ft.	...	6,268	
	Locomotive fuel	...	...	...	C. ft.	...	94,79,636				Charcoal	Mds.	267	...	28,764 6,268
	Charcoal ...	...	...	...	Mds.	56,935	...				*Forest Depôts.*				
	Babul and Sissoo seed		...	...	„	1,319	...				Firewood	Mds.	4,487	...	
	Kandi seed	...	...	...	„	22	...	1,76,532	94,79,636		Locomotive fuel	C. ft.	...	39,499	4,487 39,499
	Received by transfer in Sale Depôts.										*Sale Depôts.*				
	Firewood ...	...	...	...	Mds.	3,179	...	3,179	...	Jerruck Division.	Firewood	Mds.	1,000	...	
											Charcoal	„	13	...	1,013
											Forest Depôts.				
											Firewood	Mds.	20,538	...	
											Locomotive fuel	C. ft.	...	2,26,935	
											Charcoal	Mds.	2,624	...	
											Babul seed	„	258	...	
											Kandi seed	„	13	...	23,433 2,26,935
				Total ...		...	...	6,29,916	1,07,83,849			Total ...	...	...	6,29,916 1,07,83,849

Hyderabad,
12th October, 1893.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 60.

FOREST DEPARTMENT, SIND CIRCLE.

Abstract showing the value of timber and other produce at Sale Depôts for the year 1892-93.

	Description of timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
		No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favor of the year.	Against the year.
Sukkur Division.	*Sale Depôts.*								
	Bahan logs and dasas	425	2,150	1,075	1,805	7,223	3,612	...	...
	Babul logs and dasas	235	695	347	932	5,869	2,935	...	...
	Tali logs and dasas	404	2,444	1,222	60	395	197	...	...
	Bahan posts	1,004	...	321	3,368	...	1,078	...	...
	Babul posts	284	...	91	431	...	138	...	...
	Bahan rafters	13,505	...	1,956	15,618	...	2,265	...	...
	Babul cart axles	183	...	68	1,136	...	426	...	...
	Tali posts	52	...	17	19	...	5	...	...
	Jhau rafters	...	...	...	1,459	...	88	...	...
	Total	16,092	5,289	5,097	24,828	13,487	10,744	5,647	...
	Forest Depôts.								
	Bhan posts	900	...	225	...	...	...	...	...
	Bhan rafters	6,512	...	781	6,500	...	780	...	...
	Bhan dasas	...	...	...	300	...	270	...	...
	Total	7,412	...	1,006	6,800	...	1,050	44	...
	Sale Depôts.								
	Firewood ..... Mds.	32,131	...	5,784	7,191	...	1,294	...	...
	Locomotive fuel ..... C. ft.	...	10,921	421	...	47,501	1,948	...	...
	Total	32,131	10,921	6,205	7,191	47,501	3,242	...	2,963
	Forest Depôts.								
	Firewood ..... Mds.	6,706	...	805	13,181	...	1,582	...	...
	Locomotive fuel ..... C. ft.	...	3,202	64	...	324,727	8,843	...	...
	Babul and Sisso seed	...	...	...	92	...	46	...	...
	Total	6,706	3,202	869	13,273	324,727	10,471	9,602	...
Naushahro Division.	*Sale Depôts.*								
	Bahan logs	6	49	25	2	13	4	...	...
	Bahan posts	2	...	1	...	...	...	...	...
	Total	8	49	26	2	13	4	...	22
	Forest Depôts.								
	Babul logs	43	391	71	14	84	14	...	...
	Bahan logs	1	3	1	1	3	1	...	...
	Jhán logs	1	2	1	1	2	1	...	...
	Kandi logs	1	4	1	1	4	1	...	...
	Total	46	400	74	17	93	17	...	57
	Sale Depôts.								
	Firewood ..... Mds.	300	...	72	...	...	...	...	72
	Forest Depôts.								
	Firewood ..... Mds.	5,539	...	977	4,696	...	845	...	...
	Locomotive fuel ..... C. ft.	...	100,600	3,521	...	...	...	...	...
	Babul seed ..... Mds.	9	...	9	159	...	159	...	...
	Total	5,548	100,600	4,507	4,855	...	1,004	...	3,503

	Description of timber and other produce.	On hand at commencement of the year.			On hand at close of the year.			Difference in value.	
		No.	Cubic feet.	Value.	No.	Cubic feet.	Value.	In favor of the year.	Against the year.
Hyderabad Division.	*Sale Depôts.*								
	Babul logs	7	65	32	129	951	425	...	...
	Do.	1	...	1	1	...	1	...	...
	Bahan logs	1	7	3	1	7	3	...	...
	Bahan posts	2,048	...	410	650	...	260	...	...
	Bahan rafters	19,100	...	1,910	19,300	...	2,316	...	...
	Jháu posts	1,700	...	85	...	...	...	...	...
	Babul slabs	17	...	4	37	...	9	...	...
	Babul planks	1	...	2	1	...	2	...	...
	Babul rafters	3,756	...	751	1,556	...	187	...	...
	Jháu rafters	22,800	...	912	16,600	...	664	...	...
	Babul sleepers	64	...	64	459	...	1,262	...	...
	Babul dasas	...	...	...	218	725	362	...	...
	Babul bolsters	...	...	...	1	...	2	...	...
	Babul props	...	...	...	4,985	...	1,495	...	...
	Babul posts	...	...	...	1	...	1	...	...
	Total	49,495	72	4,174	43,939	1,683	6,989	2,815	...
	Forest Depôts.								
	Babul sleepers	91	...	182	6	...	12	...	...
	Babul pieces	7	...	1	7	...	1	...	...
	Babul rafters	206	...	31	206	...	31	...	...
	Babul logs	...	...	...	26	...	52	...	...
	Total	304	...	214	245	...	96	...	118
	Sale Depôts.								
	Firewood ....Mds.	16,028	...	2,885	28,497	...	5,129	...	...
	Locomotive fuel .... C. ft.	...	1,250	52	...	6,268	263	...	...
	Charcoal ....Mds.	420	...	235	267	...	167	...	...
	Total	16,448	1,250	3,172	28,764	6,268	5,559	2,387	...
	Forest Depôts.								
	Firewood ....Mds.	28,291	...	2,829	4,487	...	449	...	...
	Locomotive fuel .... C. ft.	...	19,303	444	...	39,499	908	...	...
	Total	28,291	19,303	3,273	4,487	39,499	1,357	...	1,916
Jerruck Division.	*Sale Depôts.*								
	Babul logs	15	297	446	...	...	...	...	...
	Babul bolster	...	...	...	12	...	60	...	...
	Total	15	297	446	12	...	60	...	386
	Forest Depôts.								
	Babul logs	19	38	5	19	38	5	...	...
	Sale Depôts.								
	Firewood ....Mds.	1,250	...	225	1,000	...	180	...	...
	Charcoal ....Mds.	13	...	13	13	...	13	...	...
	Total	1,263	...	238	1,013	...	193	...	45
	Forest Depôts.								
	Firewood ....Mds.	14,362	...	1,723	20,538	...	2,465	...	...
	Locomotive fuel .... C. ft.	...	103,026	2,176	...	226,935	4,546	...	...
	Charcoal ....Mds.	1,497	...	539	2,624	...	945	...	...
	Babul seed	...	...	...	258	...	129	...	...
	Kandi seed	...	...	...	13	...	6	...	...
	Total	15,859	103,026	4,438	23,433	226,935	8,091	3,653	...

Hyderabad,
12th October 1893.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 61.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.

Summary of Revenue and Expenditure of the different Divisions during the year 1892-93.

BUDGET HEADS.	Direction.	Hyderabad Division.	Nawshahro Division.	Sukkur Division.	Jerruck Division.	Total for 1892-93.	Total Budget Estimate.
REVENUE.							
TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—							
a. Timber	...	27,799 15 3	4,878 13 10	18,870 4 4	32,322 11 7	83,871 13 0	80,000 0 0
b. Firewood and charcoal	...	1,33,414 7 6	93,059 0 6	1,76,243 11 4	53,745 1 10	4,56,456 5 2	5,16,900 0 0
c. Grass and other minor produce	...	523 15 7	...	12 8 6	0 4 0	536 11 7	900 0 0
TOTAL I ...	...	1,61,738 6 4	97,931 14 4	1,95,126 7 8	86,068 1 5	5,40,864 13 9	5,97,800 0 0
TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS—							
a. Timber	...	2,273 12 9	760 5 3	2,021 3 6	774 9 3	5,829 14 3	7,700 0 0
b. Firewood and charcoal	...	4,485 5 2	3,363 10 6	23,971 1 9	551 0 6	32,374 1 11	29,700 0 0
d. Grazing and fodder grass	...	10,585 11 0	2,264 15 0	16,909 4 8	12,220 0 2	48,970 0 2	67,000 0 0
e. Other minor produce	...	18,110 0 10	2,750 0 0	1,333 10 0	2,476 0 1	24,669 10 11	19,700 0 0
TOTAL II ...	...	35,454 13 9	16,128 14 9	44,235 3 3	16,024 11 4	1,11,843 11 3	1,14,100 0 0
III. DRIFT AND WAIF WOOD AND CONFISCATED FOREST PRODUCE	...	...	...	12 10 11	...	12 10 11	...
TOTAL III ...	...	...	...	12 10 11	...	12 10 11	...
V. MISCELLANEOUS—							
a. Fines and forfeitures...	...	19 7 9	...	...	...	19 7 9	...
b. Refunds	...	0 8 0	...	...	411 1 10	411 9 10	...
c. Other sources	...	5,115 6 0	9,580 4 2	10,630 12 2	2,735 3 8	28,070 10 9	22,700 0 0
TOTAL V ...	...	5,135 6 6	9,580 4 2	10,639 12 2	3,146 5 6	28,501 12 4	22,700 0 0
GRAND TOTAL REVENUE... ...	...	2,02,328 10 7	1,23,641 1 3	2,50,014 2 2	1,05,239 2 3	6,81,223 0 3	7,34,600 0 0
EXPENDITURE.							
A—Conservancy and Works.							
I. TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—							
a. Timber	...	10,809 2 0	3,132 8 10	7,939 0 9	23,104 11 7	45,004 7 2	36,500 0 0
b. Firewood and charcoal	...	91,978 15 9	58,645 11 6	1,19,870 6 2	32,533 5 5	3,03,028 6 10	3,53,486 0 0
c. Grass and other minor produce	...	193 14 0	...	...	586 5 5	780 3 5	500 0 0
TOTAL A I ...	...	1,02,971 15 9	61,778 4 4	1,27,828 6 11	56,234 6 5	3,48,813 1 5	3,87,486 0 0
II. TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS	...	23 6 0	147 15 6	...	...	171 5 6	600 0 0
TOTAL A II ...	...	23 6 0	147 15 6	...	...	171 5 6	600 0 0
III DRIFT AND WAIF WOOD AND CONFISCATED FOREST PRODUCE	...	...	...	1 4 4	...	1 4 4	...
TOTAL A III ...	...	...	...	1 4 4	...	1 4 4	...
VI. LIVE STOCK, STORES, TOOLS AND PLANT—							
a. Purchase of cattle	...	130 0 0	...	...	...	130 0 0	300 0 0
b. Feed and keep of cattle	...	4 7 6	...	80 0 0	0 12 0	85 3 6	300 0 0
c. Purchase of stores, tools and plant ...	67 12 0	4,997 15 0	...	63 2 9	276 6 0	5,405 3 9	300 0 0
TOTAL A VI ...	67 12 0	5,132 6 6	...	143 2 9	277 2 0	5,620 7 8	900 0 0
VII. COMMUNICATIONS AND BUILDINGS—							
a. Roads and bridges	...	...	...	...	...	...	49 1 0
b. Buildings	...	176 6 6	41 0 0	238 4 0	70 10 0	526 4 6	1,550 0 0
c. Other works	...	...	...	2 4 0	...	2 4 0	0 15 0
TOTAL A VII ...	...	176 6 5	41 0 0	240 8 0	70 10 0	528 8 6	1,600 0 0
VIII.—DEMARCATION, IMPROVEMENT, AND EXTENSION OF FORESTS—							
a. Demarcation	...	728 5 9	33 4 0	...	1 4 0	762 13 9	650 0 0
c. Surveys	...	365 7 0	327 6 2	1,035 13 6	983 3 10	2,711 14 6	3,900 0 0
e. Sowing and planting	...	930 0 4	18 11 0	1,957 7 4	489 7 5	3,395 10 1	3,700 0 0
f. Protection from fire	...	...	...	...	...	...	100 0 0
g. Other works	...	1,055 3 7	419 2 7	75 0 0	531 4 10	2,110 11 0	20,065 0 0
TOTAL A VIII ...	...	3,079 0 8	828 7 9	3,068 4 10	2,005 4 1	8,981 1 4	28,415 0 0
IX. MISCELLANEOUS—							
c. Other charges	...	476 1 0	458 8 0	965 8 0	472 6 0	2,372 7 0	3,000 0 0
TOTAL A IX ...	...	476 1 0	458 8 0	965 8 0	472 6 0	2,372 7 0	3,000 0 0
TOTAL A. CONSERVANCY AND WORKS ...	67 12 0	1,11,859 4 5	63,254 3 7	1,32,247 2 10	59,059 12 6	3,66,488 3 4	4,22,000 0 0
B—Establishments.							
1. SALARIES—							
a. Conservators	1,000 0 0	...	...	...	...	1,000 0 0	...
b. Superior Officers	9,900 0 0	4,050 0 0	6,527 6 8	5,112 7 11	4,506 15 3	30,096 13 10	32,000 0 0
c. Subordinate Forest and Depot Establishments..	...	8,899 12 4	7,264 4 6	15,628 15 3	5,754 4 6	37,547 4 7	37,900 0 0
d. Office Establishments	3,508 3 10	1,545 8 10	1,276 15 6	1,678 15 8	1,378 6 4	9,389 2 2	9,432 0 0
e. Deputation and Special Allowances	270 10 8	...	...	...	...	270 10 8	364 0 0
TOTAL B I ..	14,678 14 6	14,495 5 2	15,068 10 8	22,420 6 10	11,639 10 1	78,302 15 3	79,696 0 0
I. TRAVELLING ALLOWANCES—							
a. Conservators	200 0 0	...	...	...	...	200 0 0	...
b. Superior Officers	1,865 12 11	1,200 0 0	2,076 9 3	1,884 12 5	1,670 0 8	8,697 3 3	7,800 0 0
c. Subordinate Forest and Depot Establishments.	...	825 8 11	632 14 5	1,220 8 8	520 0 9	3,199 0 9	3,110 0 0
d. Office Establishments	1,248 3 7	566 14 3	416 12 6	783 7 11	451 13 3	3,467 3 6	3,290 0 0
TOTAL B II ..	3,314 0 6	2,592 7 2	3,126 4 2	3,888 13 0	2,641 14 8	15,563 7 6	14,200 0 0
III. CONTINGENCIES—							
a. Stationery	25 15 0	84 8 0	138 2 11	196 4 1	65 8 9	510 6 9	614 0 0
b. Carriage of Tents and Records	330 14 9	129 4 0	121 9 0	150 3 0	122 10 5	854 9 2	688 3 0
c. Rents, Rates and Taxes	321 9 10	240 0 0	240 0 0	195 8 7	188 6 6	1,045 8 11	1,178 0 0
e. Official Postage	111 11 0	204 9 6	275 9 6	634 1 0	170 10 0	1,396 8 0	1,444 1 0
f. Sundries...	431 7 10	103 10 4	121 6 1	210 11 10	161 3 0	1,091 7 1	1,879 12 0
TOTAL B III ...	1,221 10 5	821 15 4	896 11 0	1,296 12 6	661 6 8	4,898 7 11	6,004 0 0
TOTAL B. ESTABLISHMENTS ...	19,214 9 5	17,909 11 8	19,091 9 10	27,606 0 4	14,912 15 5	98,764 14 8	99,900 0 0
GRAND TOTAL OF EXPENDITURE ...	19,282 5 5	1,29,769 0 1	82,345 13 5	1,59,853 3 2	74,002 11 11	4,65,253 2 0	5,21,900 0 0

No. F. 12948

Forwarded to the Conservator of Forests, Sind Circle, under Section 268 of the Forest Department Code.

Bombay, Accountant General's Office, Dated 5th August, 1893.

A. F. COX,
Accountant General.

FORM No. 61.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.

Summary of Revenue and Expenditure of the different Divisions during the Forest year extending from 1st April 1892 to 30th June 1893.

BUDGET HEADS.	Direction.	Hyderabad Division.	Naushahro Division.	Sukkur Division.	Jerruck Division.	Total for the Forest year.
REVENUE.						
I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—						
a. Timber	...	30,104 15 10	4,878 13 10	23,131 9 6	37,948 9 7	96,064 0 9
b. Firewood and charcoal	...	1,48,613 2 6	1,00,653 7 10	1,96,108 3 11	62,496 9 4	5,07,871 7 7
c. Grass and other minor produce	...	523 15 7	...	12 8 0	0 4 0	536 11 7
TOTAL I ...	...	1,79,242 1 11	1,05,532 5 8	2,19,252 5 5	1,00,445 6 11	6,04,472 3 11
II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS—						
a. Timber	...	2,506 1 6	1,021 2 4	2,293 13 7	811 5 9	6,722 7 2
b. Firewood and charcoal	...	5,483 12 5	4,162 11 9	31,258 12 7	622 2 6	41,527 7 3
d. Grazing and fodder grass	...	13,343 9 0	11,818 8 0	20,041 1 11	15,484 2 6	60,687 5 5
e. Other minor produce	...	22,433 5 10	3,944 9 0	2,129 0 0	4,518 4 1	33,025 2 11
TOTAL II ...	...	43,856 12 9	20,946 15 1	55,722 12 1	21,435 14 10	1,41,962 6 9
III.—DRIFT AND WAIF WOOD AND CONFISCATED FOREST PRODUCE	...	...	40 0 0	12 10 11	...	52 10 11
TOTAL III ...	...	..	40 0 0	12 10 11	...	52 10 11
V.—MISCELLANEOUS—						
a. Fines and forfeitures...	...	19 7 9	...	...	...	19 7 9
b. Refunds	...	0 8 0	...	...	411 4 4	411 12 4
c. Other sources	...	6,950 7 9	14,783 6 2	19,580 8 10	2,792 11 10	44,112 2 7
TOTAL V ...	...	6,970 7 6	14,783 6 2	19,580 8 10	3,204 0 2	44,543 6 8
GRAND TOTAL REVENUE... ...	...	2,30,069 6 2	1,41,307 10 11	2,94,569 5 3	1,25,085 5 11	7,91,030 12 3
EXPENDITURE.						
A—Conservancy and Works.						
I.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY GOVERNMENT AGENCY—						
a. Timber	...	15,077 0 9	3,132 8 10	8,126 11 0	29,911 13 10	56,248 2 5
b. Firewood and charcoal	...	1,08,575 9 9	66,454 6 4	1,27,710 5 1	37,941 11 6	3,40,772 0 8
c. Grass and other minor produce	...	184 1 6	...	...	596 5 5	780 6 11
TOTAL A I ...	...	1,23,836 12 0	69,676 15 2	1,35,837 0 1	68,449 14 9	3,97,800 10 0
II.—TIMBER AND OTHER PRODUCE REMOVED FROM THE FORESTS BY CONSUMERS OR PURCHASERS	...	58 13 0	198 15 6	...	0 11 3	258 7 9
TOTAL A II ...	...	58 13 0	198 15 6	..	0 11 3	258 7 9
III.—DRIFT AND WAIF WOOD AND CONFISCATED FOREST PRODUCE	...	...	...	1 4 4	...	1 4 4
TOTAL A III ...	..	...	...	1 4 4	..	1 4 4
VI.—LIVE STOCK, STORES, TOOLS AND PLANT—						
a. Purchase of cattle	...	130 0 0	...	...	...	130 0 0
b. Feed and keep of cattle	...	4 7 6	...	91 0 0	0 12 0	96 3 6
c. Purchase of stores, tools and plant	67 12 0	4,997 15 0	...	67 8 9	350 10 6	5,483 14 3
TOTAL A VI ...	67 12 0	5,132 6 6	...	158 8 9	351 6 6	5,710 1 9
VII.—COMMUNICATIONS AND BUILDINGS—						
b. Buildings	...	176 6 6	66 0 0	250 4 2	70 10 0	563 4 8
c. Other works	..	...	...	2 10 0	2 4 0	4 14 0
TOTAL A VII ...	..	176 6 6	66 0 0	252 14 2	72 14 0	568 2 8
VIII.—DEMARCATION, IMPROVEMENT, AND EXTENSION OF FORESTS—						
a. Demarcation	...	2,031 5 8	33 4 0	5 0 0	1 4 0	2,070 13 8
c. Surveys	...	365 7 0	327 6 2	1,216 11 6	1,281 15 10	3,191 8 6
d. Working plans...	...	30 0 0	...	...	...	30 0 0
e. Sowing and planting	...	1,104 12 4	18 11 0	1,957 7 4	676 6 3	3,717 4 11
f. Protection from fire	...	...	...	463 4 0	...	463 4 0
g. Other works	...	1,404 11 7	562 0 10	75 0 0	736 9 6	2,778 5 11
TOTAL A VIII ...	...	4,996 4 7	941 6 0	3,717 6 10	2,696 3 7	12,251 5 0
IX.—MISCELLANEOUS—						
a. Refunds	...	...	...	...	640 0 0	640 0 0
e. Other charges	...	374 14 0	359 1 0	755 13 9	415 8 0	1,905 4 9
TOTAL A IX ...	...	374 14 0	359 1 0	755 13 9	1,055 8 0	2,545 4 9
TOTAL A. CONSERVANCY AND WORKS ...	67 12 0	1,34,575 8 7	71,242 5 8	1,40,722 15 11	72,526 10 1	4,19,135 4 3
B.—Establishments.						
I.—SALARIES—						
a. Conservators	1,000 0 0	...	...	...	...	1,000 0 0
b. Superior Officers	12,600 0 0	5,257 3 3	8,477 6 8	5,862 7 11	7,328 15 3	29,524 0 1
c. Subordinate Forest and Depot Establishments..	...	11,121 4 4	9,110 13 0	19,655 5 1	7,030 14 3	46,918 4 8
d. Office Establishments	4,385 8 0	1,910 9 11	1,605 0 0	2,044 7 11	1,731 13 10	11,677 7 8
e. Deputation and Special Allowances	270 10 8	..	...	...	...	270 10 8
TOTAL B I ...	18,256 2 8	18,289 0 6	19,193 3 8	27,562 4 11	16,089 11 4	89,390 7 1
II.—TRAVELLING ALLOWANCES—						
a. Conservators	200 0 0	...	...	...	...	200 0 0
b. Superior Officers	2,630 4 11	1,200 0 0	2,706 9 3	2,184 12 5	2,120 0 8	11,141 11 3
c. Subordinate Forest and Depot Establishments	...	1,028 5 11	791 4 11	1,554 3 2	612 5 3	3,986 3 3
d. Office Establishments	1,530 4 0	698 6 1	550 4 9	926 8 11	556 13 3	4,262 5 0
TOTAL B II ...	4,360 8 11	3,226 12 0	4,048 2 11	4,665 8 6	3,289 3 2	19,590 3 5
III.—CONTINGENCIES—						
a. Stationery	30 13 6	106 14 0	161 8 11	405 9 4	82 14 9	787 12 6
b. Carriage of Tents and Records	377 1 9	172 9 8	169 3 9	171 3 0	157 6 11	1,047 0 1
c. Rents, Rates and Taxes	411 9 10	300 0 0	300 0 0	117 8 7	198 6 6	1,327 4 11
e. Official Postage	171 15 0	284 13 0	331 3 0	735 10 6	221 1 6	1,744 11 0
f. Sundries...	503 4 10	168 7 3	142 11 0	280 1 5	193 9 0	1,308 2 4
TOTAL B III ...	1,494 12 11	1,052 11 11	1,104 11 0	1,710 0 10	853 6 8	6,215 11 10
TOTAL B. ESTABLISHMENTS ...	24,111 8 6	22,568 8 5	24,346 2 1	33,937 14 3	20,232 5 2	1,25,196 8 5
GRAND TOTAL OF EXPENDITURE ...	24,179 4 6	1,57,144 1 0	95,588 7 1	1,74,660 14 2	92,758 15 3	5,44,331 10 8

Office, of the Accountant General Bombay,
Dated September, 1893.

A. F. COX,
Accountant General.

FORM No. 62.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.—ANNUAL ACCOUNT CURRENT FOR THE YEAR 1892-93.

	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To opening Balance	...	83 13 0	I. Refunds and Drawbacks—Refunds—		
VIII—Assessed Taxes—Income Tax—			Divided Heads, Forest	...	4 12 0
Deductions by Government from Salaries and Pensions	...	961 14 8	11. Forest (as per summary)	...	4,65,263 2 0
IX—Forest (as per summary)	...	6,81,223 0 3	19. Law and Justice—		
Revenue Deposits, (Forest)	...	1,820 4 0	Jails, District Jails, Contingencies, ...	...	553 15 8
Cheques and Bills, (Departmental Cheques), Forest	...	4,98,319 7 9	Revenue Deposits (Forests)	..	1,560 15 0
Advances Recoverable—			Cheques and Bills (Foeests Cheque cancelled)	...	229 8 0
Forest Advances	1,81,091 8 9	...	Advances Recoverable—		
Objection Book Advances	266 10 8	1,81,358 3 5	Forest advances	2,10,380 13 8	2,10,380 13 8
Cash recoveries	...	2,430 4 0	Cash Recoveries	...	2,430 4 0
Forest Remittances—			Forest Remittances—		
Remittances to Treasuries	13 0 6	...	Remittances to Treasuries	2,83,186 3 10	...
Inter-Divisional Transfers	26,327 13 5	...	Inter-Divisional Transfers	26,077 14 9	3,09,264 2 7
Inter-Departmental Transfers	112 4 10	26,453 2 9	Accounts Current—		
BOMBAY UNCOVENANTED SERVICE F. P. FUND—			Account between Bombay and Millitary Bengal Western Circle—		
Widows' Branch	...	721 6 6	Miscellaneous	...	37,630 3 10
Account between Bombay and Military, Bombay—			Account between Bombay and Military, Bombay—		
IV. Miscellaneous Receipts	...	162 14 4	IV. Items adjustable by Military	...	42,863 11 4
Account between Bombay and Public Works Department, Bombay—			Account between Bombay and P. W. D., Bombay—(Ordinary Branches)—		
IV. Payments into Treasuries by Civil Officers on account of Public Works Department	...	690 0 1	IV.—Items adjustable by P. W. D.	...	8,135 9 2
			Account between Bombay and P. W. D., (Railway Branches) N. W. Railway—		
			IV. Items adjustable by P. W. D.	...	3,15,539 7 10
			Do. do. Hyderabad-Umarkot Railway ..	...	293 3 2
			Closing Balances	...	69 10 6
Total Rs ...	...	13,94,214 6 9	Total Rs..	...	13,94,214 6 9

No. F. / 12949.

Forwarded to the Deputy Conservator of Forests, Sind Circle, under Section 267 of the Forest Department Code.

Accountant General's Office,
Bombay, 5th August 1893.

A. F. COX
Accountant General.

FORM No. 62.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.—ANNUAL ACCOUNT CURRENT FOR THE FOREST YEAR EXTENDING FROM THE 1ST APRIL 1892 TO 30TH JUNE 1893.

	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.
To opening Balance	...	83 13 0	1. Refunds and Drawbacks—Refunds—		
VIII—Assessed Taxes—Income Tax—			Divided Heads, Forest	...	40 14 0
Deductions by Government from Salaries and Pensions	...	1,252 13 4	11. Forest (as per summary)	...	5,44,331 10 8
IX—Forest (as per summary)	...	7,91,030 12 3	19. Law and Justice—		
Revenue Deposits, (Forest)	...	2,741 9 4	Jails, District Jails, Contingencies, ...	...	628 13 8
Cheques and Bills (Departmental Cheques), Forest	...	6,49,353 1 9	Revenue Deposits (Forests)	...	2,162 10 0
Advances Recoverable—			Cheques and Bills (Forests Cheque cancelled)	...	675 8 0
Forest Advances	2,13,423 11 6	...	Advances Recoverable—		
Objection Book Advances	266 10 8	2,13,690 6 2	Forest advances	3,12,749 2 4	...
					3,12,749 2 4
Cash recoveries	...	2,922 0 3	Cash Recoveries	...	2,922 0 3
Forest Remittances—			Forest Remittances—		
Remittances to Treasuries	13 0 6	...	Remittances to Treasuries	3,50,106 4 1	...
Inter-Divisional Transfers	26,327 13 5	...	Inter-Divisional Transfers	ƒ 26,077 14 9	...
Inter-Departmental Transfers	112 4 10	26,453 2 9			3,76,184 3 10
BOMBAY UNCOVENANTED SERVICE F. P. FUND—					
Widows' Branch	...	961 14 0	Accounts Current—		
Account between Bombay and Military Bombay—			Account between Bombay and Military Bengal Western Circle—		
IV. Miscellaneous Receipts	...	162 14 4	Miscellaneous	...	37,630 3 10
Account between Bombay and Public Works Department, Bombay—			Account between Bombay and Military, Bombay—		
IV. Payments into Treasuries by Civil Officers on account of Public Works Department	...	761 0 1	IV. Items adjustable by Military	...	47,716 9 6
			Account between Bombay and P. W. D., Bombay—(Ordinary Branches)—		
			IV.—Items adjustable by P. W. D.	...	9,423 1 0
			Account between Bombay and P. W. D., (Railway Branch) N. W. Railway—		
			IV. Items adjustable by P. W. D.	...	3,53,128 2 9
			Do. do. Hyderabad-Umarkot Railway ...	...	298 3 3
			Closing Balance	...	217 5 3
Total Rs ...	...	16,88,413 7 3	Total Rs...	...	16,88,413 7 3

No. F. / 16176.

Forwarded to the Deputy Conservator of Forests, Sind Circle, under Section 267 of the Forest Department Code.

Accountant General's Office,
Bombay, 8th September 1893.

A. F. COX,
Accountant General.

FORM No. 63.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE—REVENUE RECEIVED AND OUTSTANDINGS ON ACCOUNT OF REVENUE DURING 1892-93.

Divisions.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during the year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Sukkur ...	I.—Timber and other produce removed from the forests by Government agency—						
	(a) Timber	44 6 2	23,087 3 4	23,131 9 6	23,131 9 6	.....	
	(b) Firewood and charcoal	7,155 0 4	1,89,551 2 3	1,96,706 2 7	1,96,108 3 11	597 14 8	The outstanding under VC. at the close of the year amounts to Rs. 139-0-1.
	(e) Grass and other minor produce	.....	12 8 0	12 8 0	12 8 0	.....	
	II.—Timber and other produce removed from the forests by consumers or purchasers—						
	(a) Timber	.....	2,301 13 7	2,301 13 7	2,293 13 7	8 0 0	
	(b) Firewood and charcoal	.....	31,258 12 7	31,258 12 7	31,258 12 7	.....	
	(d) Grazing and fodder grass	.....	20,041 1 11	20,041 1 11	20,041 1 11	.....	
	(e) Other minor produce	.....	2,199 11 0	2,199 11 0	2,129 0 0	70 11 0	
	III.—Confiscated, drift and waif wood	.....	12 10 11	12 10 11	12 10 11	.....	
	Total...	7,199 6 0	2,68,464 15 7	2,75,664 6 1	2,74,987 12 5	676 9 8	
Naushahro	I.—Timber and other produce removed from the forests by Government agency—						
	(a) Timber	.....	4,878 13 10	4,878 13 10	4,878 13 10	.....	
	(b) Firewood and charcoal	.....	1,00,653 7 10	1,00,653 7 10	1,00,653 7 10	.....	The outstanding under VC. at the close of the year amounts to Rs. 344-0-0.
	(e) Grass and other minor produce	.....	.....	.....	.....	.....	
	II.—Timber and other produce removed from the forests by consumers or purchasers—						
	(a) Timber	.....	1,021 2 4	1,021 2 4	1,021 2 4	.....	
	(b) Firewood and charcoal	.....	4,162 11 9	4,162 11 9	4,162 11 9	.....	
	(d) Grazing and fodder grass	.....	11,818 8 0	11,818 8 0	11,818 8 0	.....	
	(e) Other minor produce	.....	3,944 9 0	3,944 9 0	3,944 9 0	.....	
	III.—Confiscated, drift and waif wood	.....	40 0 0	40 0 0	40 0 0	.....	
	Total...	.....	1,26,519 4 9	1,26,519 4 9	1,26,519 4 9	.....	

Hyderabad	I.—Timber and other produce removed from the forests by Government agency—													
	(a) Timber	275	0	0	30,670	3	8	30,945	3	8	30,104	15	10	840	3	10
	(b) Firewood and charcoal	1,890	4	10	1,62,538	14	11	1,64,429	3	9	1,48,613	2	6	15,816	1	3
	(c) Grass and other minor produce	.....			523	15	7	523	15	7	523	15	7	.....		
	II.—Timber and other produce removed from the forests by consumers or purchasers—													
	(a) Timber	.....			2,596	1	6	2,596	1	6	2,596	1	6	.....		
	(b) Firewood and charcoal	.....			5,483	12	5	5,483	12	5	5,483	12	5	.....		
	(d) Grazing and fodder grass	.....			13,343	9	0	13,343	9	0	13,343	9	0	.....		
	(e) Other minor produce	.....			22,433	5	10	22,433	5	10	22,433	5	10	.....		
	III.—Confiscated, drift and waif wood	.....			.....			.....			.....			.....		
	Total..	2,165	4	10	2,37,589	14	11	2,39,755	3	9	2,23,098	14	8	16,656	5	1
Jerruck ...	I.—Timber and other produce removed from the forests by Government agency—													
	(a) Timber	.....			37,948	9	7	37,948	9	7	37,948	9	7	.....		
	(b) Firewood and charcoal	17	0	0	63,388	14	11	63,405	14	11	62,496	9	4	892	5	7
											*17	0	0			
	(c) Grass and other minor produce	.....			17	11	0	17	11	0	0	4	0	17	7	0
	II.—Timber and other produce removed from the forests by consumers or purchasers—													
	(a) Timber	.....			811	5	9	811	5	9	811	5	9	.....		
	(b) Firewood and charcoal	.....			622	2	6	622	2	6	622	2	6	.....		
	(d) Grazing and fodder grass	3	4	0	15,484	2	6	15,487	6	6	15,484	2	6	.....		
											*3	4	0			
	(e) Other minor produce	.....			4,518	4	1	4,518	4	1	4,518	4	1	.....		
	III.—Confiscated, drift and waif wood	.....			.....			.....			.....			.....		
	Total..	20	4	0	1,22,791	2	4	1,22,811	6	4	1,21,901	9	9	909	12	7
Total Sind Circle.	I.—Timber and other produce removed from the forests by Government agency—													
	(a) Timber	319	6	2	96,584	14	5	96,904	4	7	96,064	0	9	840	3	10
	(b) Firewood and charcoal	9,062	5	2	5,16,132	7	11	5,25,194	13	1	5,07,888	7	7	17,306	5	6
	(c) Grass and other minor produce	.....			554	2	7	554	2	7	536	11	7	17	7	0
	II.—Timber and other produce removed from the forests by consumers or purchasers—													
	(a) Timber	.....			6,730	7	2	6,730	7	2	6,722	7	2	8	0	0
	(b) Firewood and charcoal	.....			41,527	7	3	41,527	7	3	41,527	7	3	.....		
	(d) Grazing and fodder grass	3	4	0	60,687	5	5	60,690	9	5	60,690	9	5	.....		
	(e) Other minor produce	.....			33,095	13	11	33,095	13	11	33,025	2	11	70	11	0
	III.—Confiscated, drift and waif wood	.....			52	10	11	52	10	11	52	10	11	.....		
	Grand Total...	9,384	15	4	7,55,365	5	7	7,64,750	4	11	7,46,507	9	7	18,242	11	4

* Rs. 17 written off, *vide* Government Resolution No. of

* Rs. 3 4 0 do. do. do.

Hyderabad,
12th October 1893.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 63.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE—REVENUE RECEIVED AND OUTSTANDINGS ON ACCOUNT OF REVENUE DURING 1892-93.

Divisions.	Particulars.	Outstandings at commencement of year.	Value of sales and other Revenue during year.	Total.	Amount realised during the year.	Balance due to the Department at end of year.	Remarks.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Sukkur ...	I.—Timber and other produce removed from the forests by Government agency—						
	(a) Timber	44 6 2	18,825 14 2	18,870 4 4	18,870 4 4	.....	
	(b) Firewood and charcoal	7,155 0 4	1,69,953 3 8	1,77,108 4 0	1,76,243 11 4	864 8 8	
	(e) Grass and other minor produce	.....	12 8 0	12 8 0	12 8 0	.....	The outstanding under VC at the close of the year amounts to Rs. 63.
	II.—Timber and other produce removed from the forests by consumers or purchasers—						
	(a) Timber	.....	2,021 3 0	2,021 3 0	2,021 3 0	.....	
	(b) Firewood and charcoal	.....	23,971 1 9	23,971 1 9	23,971 1 9	.....	
	(d) Grazing and fodder grass	.....	16,909 4 8	16,909 4 8	16,909 4 8	.....	
	(e) Other minor produce	.....	1,388 6 0	1,388 6 0	1,333 10 0	54 12 0	
	III.—Confiscated drift and waif wood	.....	12 10 11	12 10 11	12 10 11	.....	
	Total...	7,199 6 6	2,33,094 4 2	2,40,293 10 8	2,39,374 6 0	919 4 8	
Naushahro	I.—Timber and other produce removed from the forests by Government agency—						
	(a) Timber	.....	4,878 13 10	4,878 13 10	4,878 13 10	.....	
	(b) Firewood and charcoal	.....	93,235 0 6	93,235 0 6	93,053 0 6	182 0 0	
	(e) Grass and other minor produce	.....	.....	.....	.....	.....	The outstanding under VC at the close of the year amounts to Rs. 481-9-4.
	II.—Timber and other produce removed from the forests by consumers or purchasers—						
	(a) Timber	.....	760 5 3	760 5 3	760 5 3	.....	
	(b) Firewood and charcoal	.....	3,363 10 6	3,363 10 6	3,363 10 6	.....	
	(d) Grazing and fodder grass	.....	9,254 15 0	9,254 15 0	9,254 15 0	.....	
	(e) Other minor produce	.....	2,750 0 0	2,750 0 0	2,750 0 0	.....	
	III.—Confiscated drift and waif wood	.....	.....	.....	.....	.....	
	Total...	.....	1,14,242 13 1	1,14,242 13 1	1,14,060 13 1	182 0 0	

Hyderabad	I.—Timber and other produce removed from the forests by Government agency—													
	(a) Timber	275	0	0	27,654	15	1	27,929	15	1	27,799	15	3	129 15 10
	(b) Firewood and charcoal	1,890	4	10	1,33,634	5	7	1,35,524	10	5	1,33,414	7	6	2,110 2 11
	(e) Grass and other minor produce	.....			523	15	7	523	15	7	523	15	7	.....
	II.—Timber and other produce removed from the forests by consumers or purchasers—													
	(a) Timber	.....			2,273	12	9	2,273	12	9	2,273	12	9	.....
	(b) Firewood and charcoal	.....			4,485	5	2	4,485	5	2	4,485	5	2	.....
	(d) Grazing and fodder grass	.....			10,585	11	0	10,585	11	0	10,585	11	0	.....
	(e) Other minor produce	.....			18,110	0	10	18,110	0	10	18,110	0	10	.....
	III.—Confiscated drift and waifwood	.....			.....			.....			.....			.....
	Total...	2,165	4	10	1,97,268	2	0	1,99,433	6	10	1,97,193	4	1	2,240 2 9
Jerruck ...	I.—Timber and other produce removed from the forests by Government agency—													
	(a) Timber	.....			32,322	11	7	32,322	11	7	32,322	11	7	.....
	(b) Firewood and charcoal	17	0	0	53,865	1	10	53,882	1	10	53,745	1	10	120 0 0
											* 17	0	0	
	(e) Grass and other minor produce	.....			0	4	0	0	4	0	0	4	0	.....
	II.—Timber and other produce removed from the forests by consumers or purchasers—													
	(a) Timber	.....			774	9	3	774	9	3	774	9	3	.....
	(b) Firewood	.....			554	0	6	554	0	6	554	0	6	.....
	(d) Grazing and fodder grass	3	4	0	12,220	1	6	12,223	5	6	12,220	1	6	.....
											* 3	4	0	
	(e) Other minor produce	.....			2,476	0	1	2,476	0	1	2,476	0	1	.....
	III.—Confiscated drift and waif wood	.....			.....			.....			.....			.....
	Total...	20	4	0	1,02,212	12	9	1,02,233	0	9	1,02,113	0	9	120 0 0
Total Sind Circle ...	I.—Timber and other produce removed from the forests by Government agency—													
	(a) Timber	319	6	2	83,682	6	8	84,001	12	10	83,871	13	0	129 15 10
	(b) Firewood and charcoal	9,062	5	2	4,50,687	11	7	4,59,750	0	9	4,56,473	5	2	3,276 11 7
	(e) Grass and other minor produce	.....			536	11	7	536	11	7	536	11	7	.....
	II.—Timber and other produce removed from the forests by consumers or purchasers—													
	(a) Timber	.. ...			5,829	14	3	5,829	14	3	5,829	14	3	.....
	(b) Firewood	.....			32,374	1	11	32,374	1	11	32,374	1	11	.....
	(d) Grazing and fodder	3	4	0	48,970	0	2	48,973	4	2	48,973	4	2	.....
	(e) Other minor produce	.....			24,669	10	11	24,669	10	11	24,669	10	11	.....
	III.—Confiscated drift and waif wood	.....			12	10	11	12	10	11	12	10	11	.....
	Total...	9,384	15	4	6,46,763	4	0	6,56,148	3	4	6,52,741	7	11	3,406 11 5

* Rs. 17 written off, *vide* Government Resolution No. of

* Rs. 3 4 0 do. do. do.

Hyderabad,
12th October 1893.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM No. 64.

Forest Department, Bombay, Sind Circle.

Outstandings and Liabilities on account of Contractors and Disbursers for the Year 1892-93.

Divisions.	Department Debtor.			Department Creditor.			Balance due		Remarks.
	At commencement of year 1892-93.	Recoveries in cash and value of supplies and work done during the year 1892-93.	At close of year 1892-93.	At commencement of year 1892-93.	Payments made during the year 1892-93.	At close of year 1892-93.	To Department (outstandings.)	By Department (liabilities.)	
Contractors.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Hyderabad	...	3,045 0 0	3,045 0 0	...	3,045 0 0	3,045 0 0	...	...	
Naushahro	...	220 0 0	220 0 0	...	820 0 0	820 0 0	600 0 0	...	
Sukkur	...	1,900 0 0	1,900 0 0	...	1,900 0 0	1,900 0 0	...	...	
Jerruck	...	26,000 9 0	26,000 9 0	2,800 0 0	23,500 9 0	26,300 9 0	300 0 0	...	
Total Contractors...	...	31,165 9 0	31,165 9 0	2,800 0 0	29,265 9 0	32,065 9 0	900 0 0	...	
Disbursers.									
Hyderabad	...	43,292 8 4	43,292 8 4	1,662 10 3	51,659 0 0	53,321 10 3	10,029 1 11	...	
Naushahro	...	21,457 0 4	21,457 0 4	126 4 0	33,122 1 8	33,248 5 8	11,791 5 4	...	
Sukkur	...	67,496 10 1	67,496 10 1	855 14 8	78,104 0 0	78,959 14 8	11,463 4 7	...	
Jerruck	...	17,679 13 0	17,679 13 0	4,348 3 11	18,230 3 0	22,578 6 11	4,898 9 11	...	
Total Disbursers...	...	1,49,925 15 9	1,49,925 15 9	6,993 0 10	1,81,115 4 8	1,88,108 5 6	38,182 5 9	...	
Grand Total...	...	1,81,091 8 9	1,81,091 8 9	9,793 0 10	2,10,380 13 8	2,20,173 14 6	39,082 5 9	...	

No. F./12950.

Forwarded to the Deputy Conservator of Forests, Sind Circle, under Section 267 of the Forest Department Code.

Accountant General's Office,
Bombay, 5th August 1893.

A. T. COX,
Accountant General, Bombay.

FORM No. 64.

FOREST DEPARTMENT, BOMBAY, SIND CIRCLE.

Outstandings and Liabilities on account of Contractors and Disbursers for the forest year extending from 1st April 1892 to 30th June 1893.

Division.	Department Debtor.			Department Creditor.			Balance due.		Remarks.
	At commencement of year 1892-93.	Recoveries in cash and value of supplies and work done during Forest year.	At close of the Forest year 30th June 1893.	At commencement of year 1892-93.	Payments made during the Forest year	At close of the Forest year 30th June 1893.	To Department (outstandings).	By Department (liabilities).	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
CONTRACTORS.									
Hyderabad	.....	3,045 0 0	3,045 0 0	.....	3,045 0 0	3,045 0 0	.....	.....	
Naushahro	.....	820 0 0	820 0 0	.....	1,420 0 0	1,420 0 0	600 0 0	.....	
Sukkur	.....	1,900 0 0	1,900 0 0	.....	2,800 0 0	2,800 0 0	900 0 0	.....	
Jerruck	.....	26,000 9 0	26,000 9 0	2,800 0 0	39,985 10 0	42,785 10 0	16,785 1 0	.....	
	.....	31,765 9 0	31,765 9 0	2,800 0 0	47,250 10 0	50,050 10 0	18,285 1 0	.....	
DISBURSERS.									
Hyderabad	.....	59,394 12 4	59,394 12 4	1,662 10 3	74,937 3 8	76,599 13 11	17,205 1 7	.....	
Naushahro	.....	26,421 0 0	26,421 0 0	126 4 0	46,932 1 8	47,058 5 8	20,637 5 8	.....	
Sukkur	.....	75,074 0 8	75,074 0 8	855 14 8	1,18,899 0 0	1,19,754 14 8	44,680 14 0	.....	
Jerruck	.....	20,768 5 6	20,768 5 6	4,348 3 11	24,730 3 0	29,078 6 11	8,310 1 5	.....	
Total Disbursers...	.....	1,81,658 2 6	1,81,658 2 6	6,993 0 10	2,65,498 8 4	2,72,491 9 2	90,833 6 8	.....	
Grand Total...	.....	2,13,423 11 6	2,13,423 11 6	9,793 0 10	3,12,749 2 4	3,22,542 3 2	1,09,118 7 8	.....	

No. F. / 16,174

Forwarded to the Deputy Conservator of Forests, Sind Circle, under Section 237 of the Forest Department Code.

Accountant General's Office.
Bombay, 8th September 1893.

A. F. COX,
Accountant General, Bombay.

FORM No. 65.

FOREST DEPARTMENT, SIND CIRCLE.

Financial results of the Forest year 1892-93.

Divisions.	Timber and other produce removed from the Forests by Government Agency.		Other Revenue.		Formation, protection and improvement of Forests.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Sukkur	2,19,252	1,50,571	75,316	14,643	18,451	2,94,568	1,83,665	
Naushahro	1,05,532	79,376	35,776	9,892	10,639	1,41,308	99,907	
Hyderabad	1,79,242	1,36,458	50,828	10,104	17,615	2,30,070	1,64,177	
Jerruck	1,00,445	77,021	24,640	8,392	11,169	1,25,085	96,582	
Total... ...	6,04,471	4,43,426	1,86,560	43,031	57,874	7,91,031	5,44,331	

Hyderabad,
12th October 1893.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

FORM NO. 65.

FOREST DEPARTMENT, SIND CIRCLE.

Financial result of the year 1892-93.

DIVISION.	Timber and other produce removed from the Forests by Government Agency.		Other Revenue.		Formation, protection and improvement of Forest.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges	Charges.	Receipts.	Charges.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Sukkur	1,93,126	1,39,868	54,888	11,956	15,106	2,50,014	1,66,930	
Naushahro	97,932	69,477	25,709	7,848	8,521	1,23,641	85,846	
Hyderabad	1,61,738	1,13,638	40,591	8,113	13,745	2,02,329	1,35,496	
Jerruck	86,068	62,528	19,171	6,151	8,302	1,05,239	76,981	
Total	5,40,864	3,85,511	1,40,359	34,068	45,674	6,81,223	4,65,253	

Hyderabad,
12th October 1893.

W. S. HEXTON,
Deputy Conservator of Forests, Sind Circle.

No. 5385.

REVENUE DEPARTMENT.

Bombay Castle, 23*rd* June 1894.

Letter from the Deputy Conservator of Forests, Northern Circle, No. 2381, dated 20th January 1894—Submitting the Forest Administration Report of the Northern Circle for the forest year 1892-93, with its subsidiary statements.

Memorandum from the Commissioner, N. D., No. 297, dated 23rd January 1894—Forwarding the above.

Memorandum from the Commissioner, N. D., No. 504, dated 9th February 1894—Forwarding his remarks on the Forest Administration Report of the Northern Circle for 1892-93.

Letter from the Conservator of Forests, Central Circle, No. 4933, dated 8th January 1894—Submitting the Forest Administration Report of the Central Circle for the forest year 1892-93, together with its subsidiary statements.

Memorandum from the Commissioner, C. D., No. R.—283, dated 24th January 1894—Submitting with his remarks the Forest Administration Report of the Central Circle for 1892-93.

Letter from the Conservator of Forests, Southern Circle, No. 4758, dated 28th November 1893—Submitting the Forest Administration Report of the Southern Circle for 1892-93, together with its subsidiary statements; and making remarks.

Memorandum from the Commissioner, S. D., No. 5643, dated 28th December 1893—Forwarding, with his remarks, the Forest Administration Report of the Southern Circle for 1892-93.

Letter from the Deputy Conservator of Forests, Sind Circle, No. 2123, dated 12th October 1893—Submitting the Annual Administration Report of the Sind Forest Circle for the year 1892-93, with its subsidiary statements; and stating that Forms Nos. 54 and 55 will follow shortly.

Memorandum from the Commissioner in Sind, No. 4469, dated 12th November 1893—Submitting with his remarks the Forest Administration Report of the Sind Circle for 1892-93.

RESOLUTION.—In consequence of the change in the Forest year directed by the Government of India, the present reports cover a period of fifteen months, *viz.*, from 1st April 1892 to the 30th June 1893. An important administrative change was also effected in the course of the year 1892-93,—the old Northern Circle having been divided into two Circles corresponding with the Northern and Central Revenue Divisions. Of the two new Circles thus formed the portion falling within the Central Revenue Division remained in charge of the Honourable Mr. Shuttleworth, while the portion included within the Northern Revenue Division was placed in charge of Mr. F. R. Desai, 1st Grade Deputy Conservator of Forests. The tálukas comprised in the two forest divisions of the Thána Collectorate have also been redistributed during the year in order to equalise areas and facilitate inspection by the Divisional Officers. These two Divisions are now known as the Eastern and Western instead of the Southern and Northern Divisions. No change has been made in the limits of the Southern Circle which corresponds as before with the Southern Revenue Division.

2. The changes in area which have taken place during 1892-93 are as under:—

Circle.	Area on 1st April 1892.		Added.		Excluded.		Area on 30th June 1893.		Total Forest Area.
	Reserved.	Protected.	Reserved.	Protected.	Reserved.	Protected.	Reserved.	Protected.	
	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.	Sq. miles.
Northern Circle ...	*†933 164/640	601 386/640	22 44/640	....	368/640	2 53/640	954 480/640	599 333/640	*1,554 173/640
Central Circle ...	5,711 605/640	190 100/640	20 584/640	....	9 93/640	177/640	5,723 456/640	189 563/640	5,913 379/640
Southern Circle ...	1,977 12/640	3,404 258/640	504/640	1 339/640	128/640	421/640	1,977 388/640	3,405 176/640	5,382 564/640
Sind Circle	986 600/640	‡5 32/640	7/640	....	11 558/640	..	975 49/640	‡5 32/640	910 81/640
Total ...	9,609 101/640	4,201 136/640	42 499/640	1 339/640	21 507/640	3 11/640	9,631 93/640	4,199 464/640	13,830 557/640

* Excludes the area of the leased forests in the Dangs which is given as 678¼ square miles.

† This area has been taken from Form No. 46. The number given in paragraph 19 of Mr. Desai's report is 933 144/640 square miles.

‡ This includes 3 427/640 square miles in the Shahghardhandan Forest in the Sehwan Táluka which was omitted by the Deputy Conservator of Forests from former reports through an oversight.

In the Northern Circle $21\frac{455}{640}$ square miles were added to reserved forests in the Panch Mahâls, while 233 acres of reserved and 1,333 acres of protected forest were excluded as forming part of the Tansa Lake basin. In the Central Division considerable additions to the reserved area have been made in Khándesh and Sátára, while the changes in other Divisions have been unimportant, the net result being the addition to forest area of about 11 square miles. In the Southern Circle and in Sind the changes are insignificant.

3. No settlement work in respect of lands notified under section 34 of the Forest Act remains to be done in the Central Circle, but good progress was made in completing inquiries as regards provisionally notified lands in Khándesh, Ahmednagar, Poona and Sátára. Occupied lands aggregating 2,092 acres falling within the sanctioned projects were also acquired by purchase or exchange at very moderate rates in the four Divisions above named. But the area still to be acquired in Ahmednagar is very considerable and the Collector should be requested to give his early attention to the subject and report as to the prospects of securing the remaining land within a reasonable time. In the Northern Circle fair progress was made in settlement work and in the selection of lands for forests in the West Thána Division, and it is hoped that with the additional help of the Assistant Demarcation Officer appointed in June last, this important work will be shortly completed. In the Panch Mahâls also good progress has been made and the work brought nearly to completion. In East Thána the work of acquiring by purchase the occupied land falling within the catchment area of the Tansa Lake has been vigorously pushed on, and the result by which 4,314 acres have been acquired at an average rate of Rs. 6-8-0 per acre may be regarded as satisfactory. It appears from paragraph 36 of the report of the Deputy Conservator of Forests, N. C., that 364 square miles of forests were settled in that Circle during the year. The progress made in the settlement of areas notified under section 34 should, however, have been shown in the form prescribed by the Government of India and ordered by this Government to be adopted in Resolution No. 8738 of the 24th December 1887. This should be attended to in future reports. In the Southern Circle a large area of the Kánara Forests still remains to be settled. The outturn of the year's work appears satisfactory, making allowance for the fact that only one officer, Mr. Sheppard, could be spared for this duty. Mr. Wingate, however, rejoined at the close of the year and Government trust that most of the remaining work will be shortly completed. The interruption in Mr. Knight's tour in Dhárwár retarded the field work in that Division, but the remaining work should be completed, if possible, by the end of the current year. No steps appear to have been taken in Kolába during the year to complete the settlement of the old forests measuring $11\frac{3}{8}\frac{3}{4}\frac{3}{8}$ square miles contained in four villages of the Nágothna Táluka, and the Collector's attention should be directed to paragraph 7 of Government Resolution No. 4944 of the 8th July 1893. The necessity for increasing the forest area of the Sind Circle, in order to meet the growing demand for fuel in that province, has already been fully recognised. The special officer appointed for this purpose commenced work on the 23rd November 1892, but the progress made by him has not been reported.

4. The following table shows the results of the year's work in erecting special forest boundary marks and clearing boundary lines:—

Forest Circle.	Length in miles of boundary line cleared.	Cost of erecting cairns and stones.
	Sq. m.	Rs.
Northern Circle	181	5,527
Central Circle	1,730	11,082
Southern Circle ...	108 21	5,243

No details have been given for the Sind Circle. The importance of this work, with a view to prevent encroachments, and clearly define forest boundaries, appears to be well understood.

5. The progress made by the Forest Survey in the Northern and Central Circles appears satisfactory. It seems doubtful, however, whether it is worth while to expend so much labour and time on the minute survey of bábul reserves such as those described in paragraphs 37 to 39 of the Honourable Mr. Shuttleworth's report. Many of these reserves are narrow scattered fringes of bábul growth on the banks of rivers, with rugged and unsymmetrical boundaries. The cost of surveying such lands on the 16″ scale in Poona and Sholápur has amounted during the past season to about Rs. 190 per square mile. This appears excessive in proportion to the benefits to be derived from the survey, and the Conservator should be requested to submit a further report as to the necessity for continuing the work on the present scale in such localities. In the Southern Circle the results compare unfavourably with that of the past year both as to area and average cost per square mile. As regards the average cost, Government have in their Resolution No. 2801, dated 21st April 1894, already given instructions that in all reports and returns dealing with the work of Forest Survey Parties in Kánara an explanation should be given showing how much of the cost is necessitated by topographical work as distinguished from that incurred solely for the purposes of the Forest Survey proper.

6. The operations of the Working Plans Office, N. C., were confined during the year to the two Forest Divisions of Thána. In all 317 compartments were actually laid out as against 341 in the preceding year at the same average cost per acre. The system first adopted in Thána and based on area alone, subject to sylvicultural rules regulating the reservation of certain trees, has now been in force for some years and continues in favour as the one best suited to meet local requirements and preserve the source of supply. By taking area as the primary factor instead of volume the necessity of elaborate enumeration survey is avoided and much time as well as expense is saved. Doubts were at first entertained as to the sufficiency of this system. It is, however, gratifying to Government to find from the Review of the Inspector General on the Forest Administration of British India for the year 1891-92 (paragraph 7) that a practically identical system is now recommended for adoption in Assam.

In the Central Circle the Divisional Forest Officers have commenced the work of differentiating blocks and compartments, but they have been unable to do much more than lay out the boundaries on the ground of the compartments selected for exploitation during the year. The recent appointment of a special Working Plans Officer for this Circle will no doubt result in considerable progress being made in this direction.

In the Southern Circle working plans have been prepared for 78,317 acres only, but even these were not finally revised at the close of the year of report. Data have, however, been collected for other plans in course of preparation and it is expected that next year's report will show a decided advance as compared with the past. The Conservator, S. C., should be requested to submit a special report describing concisely the system which is being adopted in that Circle. It would appear from the reports that it is considered necessary to enumerate and classify trees in test plots so as to determine the average per acre and the size of compartments. If this be the case Government will be glad to know the reasons which in Mr. MacGregor's opinion necessitate so elaborate and laborious a system and what practical difficulty there is in basing the working plans on area alone.

The introduction of a stricter system in Sind of cutting by compartments according to a fixed plan of operations appears to have been attended with some difficulties except in Hyderabad where the working plan has been in operation for some years. Contractors and wood cutters who have been accustomed in the past to cut indiscriminately according to their own convenience will no doubt readily adapt themselves to the change, provided sufficient firmness is shown by the Forest officials.

7. The following table shows the number and result of prosecutions for forest offences in the years 1891-92 and 1892-93. In comparing the returns

it has to be remembered that the figures for the latter year cover a period of fifteen months:—

Circle.	1891-92.		1892-93.		Percentage of failures.	
	Prosecutions.	Acquittals.	Prosecutions.	Acquittals.	1891-92.	1892-93.
Northern Circle	336	54	234	62	16·07	26·5
Central Circle	926	220	1,402	393	23·75	28·03
Southern Circle	252	56	575	137	22	23·8
Sind Circle	35	14	50	25	40	50
Total ...	1,549	344	2,261	617	22·20	27·28

8. The percentage of failures is higher in all the Circles than in the preceding year and notably so in the case of the Northern Circle and Sind. The reasons given for this result are various. Different Magistrates hold different views as to the gravity of offences against Forest law and as to the nature and amount of evidence sufficient to justify convictions in such cases. The result may be due, as Mr. Sinclair surmises in the case of Thána, to greater care on the part of Magistrates in weighing evidence rather than to any difference in departmental methods of procedure. There appears, however, to be on the whole a prevailing disposition on the part of the Magistracy to treat forest offences leniently. It is the policy of Government to prevent forest restrictions from becoming harassing so far as is possible with due regard to the paramount importance of preserving the sources of supply. Leniency in dealing with breaches of Forest law is proper in the case of first offences and petty and isolated pilfering for personal use. It may also be proper when restrictions necessitating sudden changes in the daily habits of the people have been recently introduced and are imperfectly understood. But leniency is misplaced and destroys the deterrent effect of criminal prosecutions when forest depredations, however trivial they may appear when considered as individual and isolated acts, have become in any locality, in spite of repeated warnings, systematic and persistent.

9. In the Northern Circle there was a large decrease in the number of cases sent for trial. This result would be satisfactory if it indicated a real decrease in the number of offences committed. Unfortunately, however, there has been a large increase in the number of undetected offences in this Circle, *viz.* 782 as against 587, and this failure to detect offences, assuming that the officials concerned have performed their duty to the best of their ability, suggests a doubt as to whether the protective agency is sufficiently strong to cope with the work required of it. The offences in the Northern Circle were, however, mostly of a petty character, and it is at least satisfactory to observe that systematic depredation on a large scale is now of rare occurrence. Temptation to wholesale illicit cutting for trade purposes has no doubt in recent years been greatly lessened owing to the regular working of the forests and the abundant supplies of timber and firewood now obtainable at moderate rates, both for export and local supply, from the numerous compartment fellings. These fellings are now so widely distributed in Thána that there is perhaps no longer any reason for continuing the privileges of collection of dead wood. The system is admittedly open to gross abuse and can only be justified under special circumstances, where its withdrawal would cause serious hardship and inconvenience. The Collector should, however, be requested to submit a separate report on the subject.

10. In the Central Circle the number of cases sent for trial exceeded those sent in the corresponding period of the previous year by 251 (—1,177 as against 926). The increase was in great part due to the larger number of prosecutions in Poona, owing to cattle trespass cases being sent for trial to Magistrates instead of being compounded. The case referred to by the Conservator, in which from 500 to 900 acres of forest were cut and burnt for *dalhi* cultivation in the Koli villages of Nigdole, Kandvál and Terangaon, appears to have been a serious one, and the result of the inquiry by the Collector into the causes which led to it should be reported to Government.

11. Prosecutions in the Southern Circle were also more numerous than in the preceding year, the increase occurring chiefly in Kánara and Belgaum, and being due to numerous prosecutions for petty pilfering in the former and illicit grazing in closed areas in the latter district.

12. The number of cases sent for trial in Sind was as usual insignificant. It is to be regretted that the remarks of the Commissioner in Sind in paragraph 6 of his review on the report for 1891-92 should have been misunderstood by any of the Divisional Forest Officers. Mr. Hexton's interpretation of the remarks is correct and the terms in which he addressed the officer who declined to prosecute in the case which formed the subject of the misunderstanding have the full approval of Government.

13. The number of cases compounded under section 67 of the Forest Act and the amounts paid as compensation in 1891-92 and 1892-93 are shown below:—

1891-92.

Circle.	Cases compounded. For misappropriation of (a) Timber.	(b) Firewood.	(c) Minor Forest Produce.	For (d) Other Offences.	Total.	Number of cases in which compensation was accepted.	Amount realized.
							Rs. a. p.
Northern Circle ... (Old Northern Circle.)	Not given	Not given	Not given	Not given	502		
	1,210	1,254	215	9,648		11,812	30,413 11 6
Central Circle ...	Not given	Not given	Not given	Not given	11,325		
Southern Circle ...	Not given ...	Not given ...	Not given ...	Not given ...	804	*803	2,216 0 0
Sind Circle	Not given ...	Not given ...	Not given ...	29	2,752	2,720	3,418 0 0
Total ...	.....	.....	.....	.....	15,883	15,335	36,047 11 6

1892-93.

Circle.	Cases compounded. For misappropriation of (a) Timber.	(b) Firewood.	(c) Minor Forest Produce.	For (d) Other Offences.	Total.	Number of cases in which compensation was accepted.	Amount realized.
							Rs. a. p.
Northern Circle ...	199	93	59	68	419	419	1,025 3 1
Central Circle ...	830	925	147	7,745	9,647	9,647	27,019 0 0
Southern Circle ...	Not given ...	Not given ...	Not given ...	Not given ...	916	†909	2,579 0 0
Sind Circle	Not given ...	Not given ...	Not given ...	21	2,427	2,427	3,085 0 0
Total ...	.....	.....	.....	.....	13,409	13,402	33,708 3 1

* For misappropriation of—
Timber... 325
Firewood 277
Minor forest produce. 121
For other offences ... 80
Total ... 803

† For misappropriation of—
Timber... 293
Firewood 464
Minor Forest Produce. 93
For other offences ... 59
Total ... 909

14. The general decrease in the number of compounded cases is satisfactory, there having been 13,412 cases in the 15 months of 1892-93 as against 15,335 in the 12 months of the preceding year. There is an apparent increase in the Southern Circle of 106 cases (909 as against 803). But if one-fifth of the cases for 1892-93 are deducted as falling within the extra period of three

months covered by the report the total will be reduced to 724 as against 803. The decrease is apparently due in part to the fact that the Forest Officers in more than one Division have read the orders of Government as a direction to abstain from compounding altogether. This of course was not intended. But the difficulties with which the question is beset must be admitted, and the reports submitted, read with the remarks of the District Officers, seem to indicate that allowance being made for these difficulties, the warnings given by Government against free and indiscriminate recourse to the powers conferred by section 67 of the Forest Act have not been without effect, and that more discretion has been exercised in dealing with these cases than in former years. The decrease in both Divisions of Khándesh is particularly noticeable, as is also the comparatively small number of cases which have occurred in the important Forest Divisions of Kánara. Belgaum and Bijápur are the only Divisions in which an appreciable increase has taken place. The increase in the former district is, however, fully explained in paragraph 85 of Mr. McGregor's report, and as regards the latter district Government must accept the opinion of the Collector that there is no ground for complaint as to the working of this section of the Act. The increase in the Jerruck Division of Sind should have been explained and Mr. Hexton should in future attend to the directions regarding the classification of compounded cases given in Government Resolution No. 7232 of 12th September 1892.

15. Fire protection has received due attention in all the Forest Circles. The system of reporting each forest fire to the Collector and thus ensuring the co-operation of the Revenue Officers and villagers, recently introduced by Mr. Sinclair in Thána and now adopted in other Circles, has already borne good fruit and may be expected to lead to still greater improvement, when it becomes firmly established. The percentage of forest area burnt in Thána is now inconsiderable and special credit is due to Mr. Millett in West Thána for the excellent fire discipline maintained by him. Owing to the unreliability of the figures of area given in last year's reports it is probable that the real improvement in fire protection in the Northern Circle is much more marked than appears from the comparative table given in paragraph 86 of the Conservator's report. A similar improvement is shown by the returns of the remaining three Circles. The percentage of area burnt in the Central Circle has been reduced from 17·02 to 8·8 notwithstanding the fact that the fifteen months covered by the report include two hot seasons. It is to be noted, however, that the season from November 1892 to June 1893 was, owing to frequent falls of rain, specially favourable for fire protection. The area placed under protection in the Southern Circle was considerably increased and the number of failures was substantially less. The marked success of the operations in Ratnágiri is no doubt rightly attributed to the absence of any demand for grazing in the forests. In Sind also fires are reported to have been fewer and less disastrous than in former years. On the whole there appears to be satisfactory evidence that greater vigilance has been shown by the Forest officials both in preventing and extinguishing forest fires, and that the help of the Revenue officers and villagers has been more freely given and has been of especial value in tracing the causes of fires.

16. The number of animals impounded during the year for trespass in closed forests and grazing without fees in open forest, as compared with the past year, is shown below :—

Circle.	For trespass in closed area.		For grazing in open area without passes.		Total under both heads.	
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.
Northern Circle...	2,734	4,011	1,922	2,266	4,656	6,277
Central Circle ...	199,521	240,128	135,119	142,331	334,640	382,459
Southern Circle...	4,283	2,789	4,443	3,976	8,726	6,765
Sind Circle ...	10,981	15,988	12,861	9,869	23,842	25,857
Total ...	217,519	262,916	154,345	158,442	371,864	421,358

17. Taking into account the longer period covered by the present reports the figures show a decrease in the number of cattle impounded in all but the Northern Circle. The total number of cases in the latter Circle is not, however, excessive and the increase in East Thána is partially explained by the additional facilities given by the erection of new pounds in localities beyond the reach of existing ones. It is observed, however, that trespasses in closed areas, which are more serious offences and cause more injury to forests than grazing without passes in open areas, form a large proportion of the total number of cases in all the Circles. Where cases of the first class are numerous there must usually be laxity on the part of the protective establishments. Where grazing without passes in open areas is carried on the responsibility must rest to a great extent on the village officers for not strictly complying with the rules, and any tendency on the part of these officials to encourage the practice should be severely checked. There is an apparent increase from 334,640 to 332,459 in the number of cattle impounded in the Central Circle, but allowing for the additional period dealt with there seems, as the Commissioner observes, to be "a decided improvement in the direction of less infringement of the law." In several of the Divisions of this Circle the proportion of sheep and goats to other animals impounded is very large. This is specially the case in Poona, Ahmednagar, Sátára and Násik, and in the latter Division 2,500 sheep and goats, the property of foreign graziers, are reported to have been caught in closed areas by the forest subordinates and villagers and impounded in one night. The large increase in the number of cattle impounded in the Poona Division, *viz.*, 61,153 as against 45,668 in the preceding year, has not been sufficiently explained. In paragraph 13 of his review on the Annual Administration Reports of the Poona District, the Commissioner stated that the working of the grazing rules in Poona, including the impounding of cattle, would be dealt with in reviewing the Forest Administration Report of that Division. As the subject has not been noticed by the Commissioner in forwarding the report of the Conservator, C. C., a further and special report dealing with the matters in question should now be submitted.

18. The decrease in impoundings in Khándesh demands special notice. The number of cases in the two Divisions compares with the figures of the preceding year as follows :—

	1891-92.			1892-93.		
	Closed area.	Open area.	Total.	Closed area.	Open area.	Total.
East Khándesh	12,456	20,226	32,682	9,258	8,195	17,453
West Khándesh	19,342	5,158	24,500	15,802	6,506	22,308

The total for West Khándesh in 1890-91 was 45,821.

There has, as noticed in paragraph 14 above, been a large decrease also in the number of cases compounded in Khándesh, under section 67 of the Act. This result, so far as it indicates that there has been a real decrease in the number of forest offences generally and that cattle owners have learnt to respect the difference between closed and open forests, and have realised that it is better to pay grazing fees as regards the open areas once for all at the beginning of the season than pay them later in addition to pound fees and other penalties, is clearly satisfactory.

It is observed, however, that the Collector has in his administration report for the past year explained the decrease in the number of compounded cases as resulting from the discontinuance of the practice of levying damages in cattle trespass cases, and this explanation coupled with the coincident decrease in the number of cattle impounded seems to suggest the inference that the orders of Government may have been misunderstood, and that cases of cattle trespass may have been let off not merely without payment of compensation but without pounding. Before, therefore, expressing unreserved satisfaction with the results

above shown Government desire to be informed of the number of cattle found trespassing whose owners have been let off altogether as well as of the number impounded, with a brief classification of the reasons for the leniency shown.

19. Attention was called in paragraph 19 of Government Resolution No. 4944 of 8th July 1893 to the importance of fencing valuable closed areas liable to inroads of cattle. In the Central Circle an expenditure of Rs. 6,721 was incurred in purchasing wire fencing for use during the ensuing year and attempts have been made to protect exploited coupes and plantations by fences constructed from the crown branches of felled trees, as well as by wire fencing in specially selected places. Elsewhere little, if any, progress in this direction appears to have been made. Government trust that the matter will not be lost sight of. Fencing appears to be the only effectual remedy against cattle trespass, and while wire fencing on a large scale may be impracticable on account of the cost Government consider that serious efforts should be made to introduce live fences as part of the ordinary cultural operations of the Department.

20. The year has been generally favourable for rapid natural reproduction and it is satisfactory to find that in spite of fires and cattle trespass "a dense crop of promising mixed forests" is now to be seen in a good many of the compartments of the Thána Forests cut in the earlier years of the working plan rotation. Natural reproduction in Sind is said to be checked in some parts by the flow of water being stopped by protective river embankments, and the complaint is repeated that areas which were once good forest and grazing lands are rapidly drying up. This, as the Commissioner remarks, is inevitable, and the only remedy is to gradually replace the exhausted inland forests by acquiring fresh lands on the banks of the river and inside the embankments.

Cultural operations by forest guards in the Central Circle, where indeed they are most needed, appear to have been carried out with commendable energy and considerable success.

21. The receipts from grazing fees and sales of fodder grass compare with those of the preceding year as follows :—

Circle.	Amount.	
	1891-92.	1892-93.
	Rs.	Rs.
Northern Circle ... ... } Old Northern Circle.	4,35,923	26,152
Central Circle ... ... } Old Northern Circle.		*3,92,140
Southern Circle	91,487	*1,22,100
Sind Circle	59,000	*60,690
Total ...	5,86,410	6,01,082

* These figures are inclusive of the outstandings of collections of the previous year.

22. The receipts from free grazing in the Northern Circle have fallen off considerably in each Division. The decrease in East Thána is said to be "probably due to village officers having put too liberal an interpretation on the term 'free cattle.'" This presumably means that cattle which are not the *bonâ fide* agricultural cattle of forest villages have been allowed free grazing instead of grazing at privileged rates. But the matter should have been more clearly explained. In the Central Circle also the village officers in Ahmednagar are said to be neglectful of their duties in seeing that village cattle owners who habitually graze their animals in the forests take out grazing permits, while those in Poona and Sátára are said to be too liberal in differentiating the free and paying cattle, to be backward in issuing permits to village cattle owners and to connive with the latter in defrauding the grazing revenues. The Commissioner has made no comments on these remarks in forwarding the report. His attention should now be called to them, and the Collectors of the districts named above should be requested to take measures to have the lists prepared by the village officers carefully scrutinized.

23. Receipts from *hirdas* show a falling off in all three Circles of the Presidency proper, the decrease being attributed to a poor crop and low prices,

and in some cases to pilfering, while in Thána the concession to occupants of all but the reserved kinds of trees in their lands has been a further cause of decline. The arrangements made in the Northern Circle for carrying out the instructions in Government Resolution No. 9846 of 15th December 1892 as to the principles on which the collection and disposal of minor forest produce should be regulated, appear satisfactory.

24. The number of unsold coupes in the Thána District, *viz.* 59 out of 284, was unusually large; and of this number 4 only were felled departmentally, as it was found that the local supply of branchwood for râb could be met from other sources. The unsold compartments are mostly, it is understood, in the Váda, Mokháda and Sháhápur ranges, and the reason for their not being sold or felled departmentally is in some cases their inaccessibility and the consequent difficulty of bringing the produce to market, and in others the poor material contained in them. These reasons must be accepted. It is hoped that it will be possible to open out the East Thána forests by degrees by improvement of communications. But as Mr. Reid observes the timber of this tract must always remain at a disadvantage, as compared with West Thána, in the absence of facilities of transport by water and rail. The expectation that new markets will be found for the produce of the Panch Mahâls forests, owing to the opening of the Godhra-Rutlam Railway, will, it is hoped, be realised.

25. The financial results of the year's operations, as compared with the previous year, are shown in the following table:—

Circle.	Receipts.		Expenditure.		Net Revenue.		Increase or Decrease of net Revenue in
	1891-92.	1892-93.	1891-92.	1892-93.	1891-92.	1892-93.	1892-93.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Northern Circle ..	6,14,271 (13,62,732)	6,35,449	2,43,195 (7,18,493)	2,69,287	3,71,076 (6,44,239)	3,66,162	—4,914
Central Circle ...	7,48,154	8,23,495	4,74,677	5,87,992	2,73,477	2,35,503	—37,974
Southern Circle ...	11,47,707	12,01,085	7,05,231	6,74,597	4,42,476	5,26,488	+84,012
Sind Circle	7,74,210	7,91,031	5,01,936	5,44,331	2,72,274	2,46,700	—25,574
Total ...	32,84,342	34,51,060	19,25,039	20,76,207	13,59,303	13,74,853	+15,550

26. The decrease in the net revenue of the Northern Circle (Rs. 4,914) is inconsiderable, and is due in great part to increased but necessary expenditure on the acquisition of lands for forests. The receipts are more than those of the preceding year by Rs. 21,177, although the revenue from minor forest produce fell considerably owing to the limitation of collection to articles for which a trade demand exists or is likely to be created, and to the comparative failure of the myrobalan crop.

27. Receipts in the Central Circle increased by about three-fourths of a lákh, but on the other hand expenditure both on conservancy and works and on establishment rose by Rs. 1,13,315, resulting in a decrease of net revenue of Rs. 37,974. In making this comparison, however, it has to be remembered that the figures for 1892-93 include the receipts and expenditure of fifteen months, and while the receipts of April, May and June of 1893 amounted to Rs. 71,708 only, this being the time of the year when least revenue is received, the expenditure during the same period was Rs. 1,05,513. The increase in expenditure over that incurred in the past year is explained to be due to felling operations on a larger scale in some Divisions and to the increased rates of salaries drawn under the re-organisation scheme for the upper controlling branches of the department with effect from the opening of the year. The suggestion of the Commissioner, C. D., in the concluding sentence of paragraph 13 of his forwarding memorandum that the receipts, expenditure and net revenue for the past ten years should be shown for the Circle as it is now constituted, should be adopted in next year's report.

28. The receipts and net revenue of the Southern Circle were larger by Rs. 53,378 and Rs. 84,012 respectively than in the preceding year. This result

is on the whole satisfactory and is due to a more favourable market for timber felled departmentally in the Northern Division of Kánara and in Kolába. On the other hand the revenue from *hirdas* as in the other Circles showed a considerable decline, and there was a decrease in the yield of large teak in Kánara, the falling off being attributed to bad agricultural seasons and consequent stagnation of trade and to the competition of Burma teak bought by the Southern Marátha Railway. Expenditure on establishments increased from Rs. 2,67,816 to Rs. 2,85,773 for the reasons given in the preceding paragraph. On the other hand the charges for conservancy and works were less by Rs. 48,591, owing chiefly to no new contracts in North Kánara having been given during the year to bring in wood to the depôt, there being large stocks in hand from the previous year. The increased demand for blackwood for export is noticeable and if maintained is likely to bring in a considerable revenue, as the supply is said to be large while the local demand is insignificant.

28. In Sind the financial results have not been satisfactory. The receipts for the fifteen months covered by the report show an increase of Rs. 16,821 as compared with the preceding twelve months, and the expenditure an increase of Rs. 42,395, resulting in a decrease of Rs. 25,574 net revenue. Taking the figures of the financial year only, receipts have fallen by Rs. 92,987 and net revenue by Rs. 56,304. The year, however, is reported to have been a very unfortunate one for forest operations. An abnormal rainfall was succeeded by heavy floods, making exploitation impossible till the end of October, while work had to cease earlier than usual in the river side forests owing to the river rising a month earlier than usual. Labour is also said to have been scarce owing to cholera.

29. Government acknowledge with pleasure the efficient manner in which the Conservators and Deputy Conservators in charge of Circles have discharged their duties and observe with especial satisfaction the remarks of the Honourable Mr. Shuttleworth and Mr. Desai as to the cordial assistance rendered by the Revenue officers of their Circles: and as to the harmony and good feeling which marks the relations of the Revenue and Forest Officers.

30. The errors and discrepancies which have been discovered in scrutinising the reports under review have been noted in the accompanying appendix.

G. W. VIDAL,
Acting Chief Secretary to Government.

To

The Commissioner, N. D.,
The Commissioner, C. D.,
The Commissioner, S. D.,
The Commissioner in Sind,
All Collectors, including the Collectors and Deputy Commissioners in Sind,
The Conservators of Forests, Central and Southern Circles,
The Deputy Conservators of Forests, Northern and Sind Circles,
The Survey Commissioner and Director of Land Records and Agriculture,
The Accountant General,
The Judicial Department of the Secretariat,
The Public Works Department of the Secretariat.

} With copies of the report.

The Secretary of State,
The Government of India,
} by letter.

The Editors' Tables, Bombay and Poona.

No. of 1894.

Copy forwarded for information and guidance to

APPENDIX REFERRED TO IN PARAGRAPH 30 OF GOVERNMENT RESOLUTION, No. 5385, DATED 23rd JUNE 1894.

Northern Circle.

The area of Reserved Forest on the 1st April 1892 in the Northern Circle is shown in paragraph 19 of the report for the Northern Circle as $933\frac{144}{640}$ square miles, whereas that shown in Form No. 46 appended to the report is $933\frac{164}{640}$ square miles.

The area of Reserved Forest on 30th June 1893 is shown in the same paragraph as $954\frac{477}{640}$ square miles, whereas in Form No. 46 the area is shown to be $954\frac{480}{640}$ square miles.

The area of land shown in paragraph 19 of the report as excluded from Protected Forest in the East Thána Division as it formed part of the Tánsa lake basin is 1,331 acres, whereas in the table embodied in that paragraph and in Form No. 46A it is given as $2\frac{53}{640}$ square miles and 1,333 acres respectively.

The legally constituted forest area in East Thána on 1st April 1892 as given in paragraph 20 is $589\frac{207}{640}$ square miles, whereas according to Forms 46 and 46A it is $589\frac{337}{640}$ square miles.

The forest areas on 30th June 1893 in Thána and the Panch Maháls as given in paragraph 20 differ as shown below from those given in paragraph 38 of the report and in Forms 46 and 46A:—

Division.	Area as shown in paragraph 20.	Area as shown in paragraph 38.	Area as shown in Forms 46 and 46A.
	Sq. Miles.	Sq. Miles.	Sq. Miles.
East Thána	$678\frac{288}{640}$	$587\frac{50}{640}$	$587\frac{51}{640}$
West Thána	$588\frac{147}{640}$	$679\frac{385}{640}$	$679\frac{384}{640}$
Panch Maháls	$218\frac{633}{640}$	$333\frac{455}{640}$	$218\frac{636}{640}$

In paragraph 32 the forest area in West Thána over which the Forest Settlement Officer's proceedings extended during the year is shown as $141\frac{348}{640}$ square miles, but in Form No. 47 the area taken in land during the year is shown as 199 square miles.

Compensation for land and rights as shown in paragraph 33 is Rs. 28,540, whereas that shown in Form No. 61 is Rs. 30,553.

The expenditure on burning fire lines during 1892-93 as given in paragraph 96 is Rs. 3,791, whereas in Form No. 53 the amount shown is Rs. 3,683.

In the table incorporated in paragraph 146 the number of animals licensed for grazing during the year 1892-93 is shown in the column of amount of fees paid during 1891-92 and *vice versâ*. The amount of fees paid during 1892-93, is shown in the same table as Rs. 10,319, while in Form No. 55 it is shown as Rs. 10,314-5-6.

The figures given in Chapter IV (Financial Results) do not agreee with those in Forms Nos. 61 and 65, the former being apparently for the financial year 1892-93, while the latter are for the forest year from 1st April 1892 to 30th June 1893, but this should have been explained.

Central Circle.

The amounts for compensation for land and rights paid in the Poona and Sátára Districts as shown in paragraph 24 are Rs. 40 and Rs. 10 respectively, while those shown in Form No. 61 are Rs. 173-7-0 and Rs. 135 respectively.

According to the table in paragraph 58 the number of prosecutions during 1892-93 in the Poona District was 543, but in the 4th line of page 16 of the report the number is shown as 549.

The amount of timber in the rough exploited departmentally during 1892-93 is given in paragraph 164 as 315,356 cubic feet and in Form No. 59 as 315,336 cubic feet.

The expenditure on public works in West Khándesh and in Poona is shown in paragraph 55 as Rs. 1,559-14-5 and Rs. 20 respectively, but that shown in Form No. 51 is Rs. 1,567 and Rs. 28 respectively.

The figure 1,663 entered in the last column against Sholápur in the table embodied in paragraph 61 should be 1,668.

The departmental collection of hirda nuts in the Poona District during 1892-93 was 3 khandis, 3 maunds, 16 lbs. according to Form 58, but in paragraph 175 it is shown as nil. In the same paragraph 265 khandis are shown as the quantity of hirda departmentally collected in Poona during 1891-92, but in the report for that year this quantity was shown as having been removed by purchasers.

In paragraph 161 it is stated that the revenue derived from rosha oil amounted to Rs. 15,098-14-6, but the amount shown in Form No. 58 is Rs. 14,668. The value of hirda nuts sold in the Ahmednagar District and the quantity of these nuts brought into the Poona Forest Depôts are stated in paragraph 162 to be respectively Rs. 745-11-0 and 169 khandis 16 maunds 2 lbs., but the figures according to Form 58 are Rs. 784 and 65 khandis 19 maunds 7 lbs. respectively.

The total receipts and expenditure of the Northern and Central Circles for 1891-92 as shown in the reports for 1892-93 do not tally with the corresponding figures of the old Northern Circle for 1891-92 as given in the report for that year.

Southern Circle.

Expenditure on the well at Kolikeri is shown in paragraph 65 as Rs. 384 and in Form No. 51 as Rs. 348.

In paragraphs 183 and 187 the yield of myrabolams in the Kánara and Belgaum Districts during 1892-93 is shown to be 2,319 and 2,751 khandis respectively, while in Form 58 the figures given are 2,355 and 2,891 khandis respectively.

In paragraph 188 the number of bámbus removed from depôts in the Belgaum District during 1892-93 is shown as 678,467, whereas the number given in Form 57 is 678,517.

ADMINISTRATION REPORTS

OF THE

FOREST DEPARTMENT

IN THE

BOMBAY PRESIDENCY,

INCLUDING

SIND

FOR THE YEAR 1893-94.

Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1895.

[Price—Rs. 2-4-0.]

NORTHERN CIRCLE.

No. 2241 of 1894-95.

From

R. C. WROUGHTON, Esquire,

Deputy Conservator of Forests, Northern Circle;

To

The Honourable Mr. J. NUGENT,

Chief Secretary to Government, Revenue Department,

Bombay.

Camp Wejalpur, Panch Mahâls District,
4th December 1894.

Sir,

I have the honour to submit, herewith, the Forest Administration Report of the Northern Circle for the Forest year 1893-94, together with its prescribed subsidiary statements.

I have the honour to be,

Sir,

Your most obedient Servant,

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

Through the Commissioner, Northern Division.

B 1106—a N. C.

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FOREST ADMINISTRATION REPORT

OF THE

NORTHERN CIRCLE, BOMBAY PRESIDENCY,

FOR THE OFFICIAL YEAR 1893-94.

INTRODUCTION.

The Circle, during practically the whole year under report, was administered by Mr. F. R. Dasai, Deputy Conservator of Forests, Messrs. Greatheed, Millett, Fisher and Wallinger being in charge of the several divisions and Mr. T. B. Fry, Deputy Conservator of Forests of the Working Plan Branch.

2. An area of 194 square miles was added to Reserved forest during the year. One hundred and eighty-seven square miles of this area were obtained by transfer of Protected forest, while the remaining 7 square miles represent the catchment area of the Tánsa Lake in East Thána, which was acquired by purchase during the year.

3. The Forest Survey Party of the Government of India continued work during the year in the Thána Divisions, the forests of which are being surveyed on a scale of 8″ = 1 mile.

4. The Working Plan branch continued their work in Thána, but were unable to get much ahead of immediate requirements in marking off compartments on the ground.

5. Protection, as judged by success in obtaining convictions in cases prosecuted, shows a slight falling off, but it is believed to be more in appearance than reality.

6. Protection from fire though not very successful was on the whole, especially in Thána, fairly satisfactory.

7. The financial results of the year constitute a record. The highest gross revenue ever collected, *viz.*, Rs. 7,60,954, was obtained, while at the same time expenditure remained low. The actual net revenue amounted to no less than Rs. 4,96,007.

CHAPTER I.

EXTENSION AND CONSTITUTION OF STATE FORESTS.

(i).—ALTERATION OF AREA.

8. The changes made in the forest area during the year were as follows :—

Class of Forests.	Area on 1st July 1893.	Added during the year.	Excluded or transferred during the year.	Area on 30th June 1894.	Remarks.
	Sq.m. a.	Sq.m. a.	Sq.m. a.	Sq.m. a.	
Reserved	953 184	194 254	4 337	1,143 101	
Protected	601 80	.....	155 121	445 599	
Leased	678 320	.....	.....	678 320	

9. In the Máhim (136½ square miles) and Dáhánu (17½ square miles) Ranges of the West Thána Division large areas of Protected forest were excluded by the Demarcation Officer. Of these areas, however, 57·7 square miles and 14·6 square miles were respectively selected for reservation and with 7·1 square miles added in East Thána (portion of Tánsa catchment area) and 114·6 square miles added in the Jhálod and Dohad Ranges of the Panch Mahál Division (representing Protected forest excluded two years ago and notified under Section 4) make up the 194¼ miles shown above as added to Reserved forest.

(ii).—FOREST SETTLEMENTS.

10. The only special Forest Settlement Officer during the year was Mr. Orr, I. C. S., in Thána; in the other divisions the work was done by Assistant Collectors in addition to their own duties.

East and West Thána.

11. Forest settlement has made steady progress during the year.

12. The demarcation and settlement of Máhim Range, West Thána, was approved and sanctioned by Government Resolution No. 4567, dated 24th May 1894, and that of 38 villages of Dáhánu Range (done by Mr. McIver) in the same division by Government Resolution No. 4619, dated 25th May 1894.

13. The demarcation of the remaining villages of the Dáhánu Range was completed by Mr. Orr during the year.

14. Mr. Orr, who was on leave when the year opened, on taking up work on 20th August 1893, set to work to arrange and classify the records so as to show exactly what remained to be done. Overdue settlement proceedings were then taken up in Bhiwndi (East Thána) and Bassein and Sálsette (West Thána) Ranges. A number of notifications of disforestment, for the most part representing not a real change of the forest area but a correction of errors in the records, were also published.

15. Lands acquired for forest in Bhiwndi, Váda and Kalyán (East Thána) were notified under Section 4.

16. Negotiations for the acquisition of land for forest, some of which had been in abeyance for 10 years, were resumed and brought to a definite conclusion.

17. Finally, under the orders of the Collector, the draughtsman and surveyors in the Forest Settlement Office, were employed, during the rains, in preparing maps of the settled Ranges, showing the forest boundaries on the scale of 2″ = 1 mile.

18. The settlement of the Jawhár State boundary in 14 villages of the Dáhánu Táluka by Mr. Dunsterville though not forest settlement must also be recorded here, for Mr. Dunsterville's establishment was drawn from the Forest Settlement Office by order of the Collector.

Panch Maháls.

19. The draft notification under Section 19 in connection with the transfer to Reserved forest of the forest areas of Dohad and Jhálod, referred to in last year's report as having been submitted to Government for publication, was dealt with in Government Resolution No. 4909, dated 7th June 1894, which approved of the proposals made by, which certain privileges already conceded were confirmed and certain others granted. The question of concessions of grazing and treatment of trees on waste lands outside forest was disposed of by the same resolution.

20. The following statement shows the position of forest demarcation and settlement in the Circle by detail of Ranges :—

Number.	Division.	Tálukas in which Forest Settlement and Demarcation has been completed.	Tálukas in which Forest Settlement and Demarcation is still to be completed.	Remarks.
1	East Thána ...	Bhiwndi, Kalyán, Mokhá-da, Váda.	Murbád, Shahápur.	
2	West Thána ...	Bassein, Máhim, Sálsette, part of Dáhánu.	Part of Dáhánu, Umbargaon.	
3	Surat	Mándvi, Balsár, Párdi, Chikhli, Bárdoli.	.....	
4	Panch Maháls ...	Godhra, Kálol, Hálol, Dohad, Jhálod.	.....	

21. The details of land acquired by purchase during the year were as follows :—

Number.	Division.	Area acquired.	Price paid.	Rate per Acre.	Remarks.
		A. g.	Rs. a. p.	Rs. a. p.	
1	West Thána ...	0 10¾	2 0 0	7 7 0	

22. There was no land obtained by exchange.

23. The following statement shows the cost of Forest Settlement Officers and their establishments for the several divisions :—

No.	Division.	Forest Settlement Officers.		Office Establishments.		Contingencies.	Total.
		Pay.	Travelling Allowance.	Pay.	Travelling Allowance.		
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1	East Thána ...	9,220 0 0	1,817 11 0	5,265 5 2	1,249 4 3	511 13 8	18,064 2 1
2	West Thána ...						
3	Surat	.....	.....	1,285 1 6	.....	.....	1,285 1 6
4	Panch Mahals ...	.....	.....	.....	.....	44 10 9	44 10 9
	Total ...	9,220 0 0	1,817 11 0	6,550 6 8	1,249 4 3	556 8 5	19,393 14 4

24. The expenditure incurred upon the formation and constitution of Reserved and Protected forests during the year has amounted to Rs. 22,217-14-4 :—

		Rs. a. p.
1.	Salaries and travelling allowances of Forest Settlement Officers not charged to forests	11,037 11 0
2.	Salaries and travelling allowances of establishments employed under Forest Settlement Officers and charged in forest accounts and the contingent expenditure of the latter	8,356 3 4
3.	Demarcation of forest boundaries upon the ground by the construction of special forest boundary-marks ...	2,822 0 0
4.	Compensation for land and rights	2 0 0
	Total ...	22,217 14 4

25. The work effected during the year by the expenditure detailed above comprises :—

(*a*) The settlement of 252 square miles at a cost of Rs. 77 per square mile.

(*b*) The demarcation of 139½ miles of forest boundary at Rs. 20-4-0 per mile.

(*c*) The purchase of 10¾ gunthas of land for forest reservation at Rs. 7-7-0 per acre.

26. The following statement shows the area to be examined, demarcated and settled in the Northern Circle :—

No.	Division.	Area settled.	Area unsettled.
		Sq. m. a.	Sq. m. a.
1	East Thána	1,298 12	386 389
2	West Thána	247 450	254 242
3	Surat	68 477	.....
4	Dángs	678 320	.....
5	Panch Mahals	333 410	.....
	Total ...	1,626 389	640 631

(iii).—DEMARCATION.

27. The following statement shows the clearance of boundary lines and the erection of forest boundary marks performed during the year :—

No.	Division.	Length of Boundary demarcated.	Number of Cairns erected.		Amount spent.	Rate per Mile.	Remarks.
			Large.	Small.			
					Rs. a. p.	Rs.	
1	East Thána ...	10½	68	105	125 0 0	...	
2	West Thána ...	41½	446	13	276 0 0	...	Besides 1,440 stones planted.
3	Surat ...	17¼	235	121	*2,822 0 0	...	* Include Rs. 1,333 on account of Dángs.
4	Panch Maháls ...	70¼	3	74	515 0 0	...	Besides 1,447 tin plates were used as indicators of forest boundary.
	Total, 1893-94 ...	139½	752	313	3,738 0 0	26¾	
	Total, 1892-93 ...	181	2,901	1,698	5,527 4 4	30½	

(iv).—SURVEYS.

28. Last year details of work done by the Forest Survey Party of the Government of India with cost, rates, &c., were given, but these were for the Survey and not for the Forest year.

29. The Superintendent writes that 51·21 square miles of detailed 8″ topographical survey were completed up to 30th June 1894. The amount debited for forest survey is Rs. 11,727-2-3. This would give a cost rate of Rs. 229 square miles, but this cannot be correct. In fact the difference in the two years is a bar to the record here of any useful figures.

CHAPTER II.

MANAGEMENT OF STATE FORESTS.

I.—REGULATION AND MANAGEMENT.

(a).—Working Plans and their Control.

30. The Working Plans Division was in charge of Mr. T. B. Fry, Deputy Conservator of Forests, during most of the year under report. Mr. Millett, Deputy Conservator of Forests, holding charge in addition to his own duties from 5th August 1893 to 4th November 1893 during Mr. Fry's absence on privilege leave and again from 10th May 1894 to the close of the year on the transfer of Mr. Fry to the Southern Circle.

31. Mr. Fry, who was Working Plans Officer for the old Northern Circle, continued to be Working Plans Officer for the two Circles after their separation and up to 1st January 1893. From that date, under Government Resolution No. 10144, dated 28th December 1892, he became Working Plans Officer, Northern Circle. As, however, the Working Plans Branch of the Central Circle had not been organized, Mr. Fry's head-quarters were fixed at Poona and, under Government Resolution No. 8106, dated 4th November 1893, his services as well as those of his establishment were lent to the Central Circle up to the Christmas vaca-

tion. Nearly the whole of the working season, thus curtailed, was employed in laying out the coupes of the coming year, only the last few weeks being available for marking off coupes in advance in the Bassein Range.

32. There are theoretically 284 blocks in the two Thána Divisions, but for various reasons 11 of these are not to be worked in 1894-95. Consequently 273 coupes were laid out during the season ready for working in the coming season and 90 coupes were laid out in advance in a less detailed way (*i. e.*, with small cairns at the principal angles only) in 13 blocks of Bhiwndi.

33. The following statement shows the extent to which the paper Working Plan has been marked out and realized on the ground up to date :—

Name of Range.	Number of Blocks.	Total Number of Coupes.	Number of Coupes marked out.	Number of Coupes exploited.	Number of Coupes to be worked in 1894-95.	Number of Coupes marked for future exploitation.	Number of Blocks in which Coupes for future exploitation are laid out.	Number of Coupes yet to be marked out.	Remarks.
East Thána Division.									
Bhiwndi	20	800	198	138	20	40	13	602	
Kalyán	16	640	119	103	16	...	...	521	
Murbád	20	800	104	89	15	...	...	696	
Shahápur and Khardi ...	53	2,120	259	211	48	...	...	1,861	
Mokháda	12	480	60	49	11	...	...	420	
Váda	34	1,360	199	147	33	19	6	1,161	
West Thána Division.									
Sálsette	10	400	63	53	10	...	...	337	
Bassein	23	920	281	165	24	92	16	639	
Máhim	35	1,400	256	219	35	2	1	1,144	
Dáhánu	39	1,560	279	240	39	...	...	1,281	
Umbargaon	18	720	121	103	18	...	...	599	
Talasri Mokháda ...	4	160	19	15	4	...	...	141	
	284	11,360	1,958	1,532	273	153	36	9,402	

34. It will be seen that the work to date has been from hand to mouth and that only some 150 coupes have been marked in advance out of 9,402 requiring to be so marked. This is no doubt due to the short working season available so long as coupes had also to be marked in the Dekkhan Divisions. But it must also be remembered that under any circumstances the incomplete state of settlement and the want of sanction to the paper scheme would have prevented much more rapid progress. Forest settlement is, however, now complete in 6 Ranges and the work of laying out advance coupes can now be pushed on.

35. The following statement shows the employment of time by the Working Plans surveyors :—

Percentage of time employed in	1892-93.	1893-94.
Working days (field and office work) ...	51	64
Sundays, holidays and leave ...	14	23
Travelling	23	10
Illness and delays	12	3

The increase in the proportion of working days and the decrease under the last two heads is most satisfactory.

36. The following is a statement of the work performed by the Working Plans Officer and his establishment during 1893-94 :—

No.	Range.	Total Forest area.	Number of Blocks per Range.	Number of Compartments actually laid out in 1893-94.	Average area of Compartments actually laid out.	Remarks.
	East Thána.	Acres.			Acres.	
1	Kalyán	35,037	16	16	46	
2	Murbád	90,295	20	15	49	
3	Bhiwndi	47,868	20	20	48	
4	Mokháda	35,891	12	11	55	
5	Khardi	157,143	53	48	60	
6	Shaháp ur					
7	Váda	76,219	34	33	54	
	Total ...	442,453	155	143	54	
	*Total during 1892-93 ...	339,545	124	132	53	* Excluding Váda Range and including Talasri Mahál of the Mokháda Range.
	West Thána.					
1	Sálsette	15,393	10	10	38	
2	Bassein	54,030	23	24	51	
3	Máhim	74,108	35	35	51	
4	Dáhánu	172,641	61	61	56	
5	Umbargaon					
	Total ...	316,171	129	130	49	† Including Váda Range and excluding the Talasri Mahál.
	†Total during 1892-93 ...	349,094	158	185	50	

37. It will be seen from the above that the area marked for exploitation falls short of the theoretical $\frac{1}{40}$ of the "Forest Area." In fact after deducting the unworkable or climatic forest the area which should theoretically come under the axe in the two Thána Divisions is just under 19,000 acres, whereas the actual area laid out for exploitation is a trifle under 14,400. This is due to the fact that much of the "Forest Area" is only provisional and will certainly in part be disforested ultimately, consequently the yield must, for safety's sake, be kept considerably below the paper possibility.

38. The expenditure on these operations is exhibited below, from which it will be seen that the cost per acre of laying out the compartments of the year under report is exactly the same as that of the preceding year :—

No.	Range.	Number of Compartments.	Defined by		Aggregate area of Compartments.	Cost.	Average cost per Compartment.	Average cost per Acre.	Remarks.
			Cairns.	Stones.					
	East Thána.				A. g.	Rs. a. p.	Rs. a p.	Rs. a. p.	
1	Kalyán	16	51	1,562	737 20	73 6 0	4 9 4	0 1 7	
2	Bhiwndi	20	16	1,229	962 10	65 11 0	3 4 4	0 1 1	
3	Murbád...	15	46	1,450	735 10	70 9 0	4 11 0	0 1 6	
4	Shaháp ur	48	160	4,428	2,885 2	222 8 0	4 10 2	0 1 3	
5	Khardi								
6	Mokháda	11	33	913	625 0	40 11 6	3 11 3	0 1 0	
7	Váda	33	104	2,746	1,731 20	178 7 3	5 6 6	0 1 7	
	Total ...	143	410	12,328	7,726 22	651 4 9	4 8 10	0 1 4	
	West Thána.								
1	Sálsette...	10	28	803	384 20	45 7 0	4 8 8	0 1 10	
2	Bassein	24	23	1,873	1,164 20	96 0 0	4 0 0	0 1 4	
3	Máhim	35	138	2,443	1,782 20	157 14 0	4 8 0	0 1 5	
4	Dáhánu...	48	141	3,762	2,731 15	221 9 0	4 9 10	0 1 4	
5	Umbargaon	13	42	1,126	590 30	55 9 6	4 4 5	0 1 6	
	Total ...	130	372	10,012	6,653 25	576 7 6	4 6 11	0 1 4	
	Grand Total ...	273	782	22,340	14,380 7	1,227 12 3	4 8 0	0 1 4	
	Total during 1892-93 ...	317	991	26,539	17,026 30	1,403 8 0	4 6 10	0 1 4	

II.—WORKING OF THE YEAR.

(*a*).—Communications and Buildings.

39. The amount departmentally spent on works under this head was Rs. 7,327-8-0.

The details of this expenditure are shown below :—

Description of Work.	East Thá'na.		West Thá'na.		Surat.		Panch Mahá'ls.		Total.
	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	
		Rs. a. p.		Rs. a. p.		Rs. a. p.		Rs. a. p.	Rs. a. p.
1. Bungalows—									
New work ..	...	.....	...	.....	3	1,694 0 0	1	367 10 1	2,061 10 1
Repairs ...	1	301 10 0	1	31 14 0	3	250 0 0	2	462 5 0	1,045 13 0
2. Roads—					Miles.				
New work ...	...	.....	...	.....	10	822 5 6	...	.....	822 5 6
					Miles.				
Repairs ...	...	.....	...	.....	72	865 12 8	...	.....	865 12 8
3. Rest-houses—									
New work ...	...	.....	...	.....	1	430 0 0	...	.....	430 0 0
Repairs ...	...	.....	...	.....	...	.....	...	.....	.....
4. Guards' huts—									
Forest posts ...	...	.....	...	.....	...	.....	...	.....	.....
New work ..	1	7 0 0	...	.....	3	77 0 0	...	.....	84 0 0
Repairs ...	144	570 15 0	167	412 8 0	3	5 1 11	1	22 0 0	1,020 8 11
5. Cattle-pounds—									
New work ...	8	118 9 6	12	225 4 9	...	.....	...	.....	343 14 3
Repairs ...	...	.....	...	.....	...	.....	...	.....	.....
6. Other works—									
New work ...	...	.....	...	.....	2	37 14 4	1	620 9 3	658 7 7
Repairs ...	...	.....	...	.....	1	5 0 0	...	.....	5 0 0
Total ...	...	998 2 6	...	669 10 9	...	4,187 2 5	...	1,472 8 4	7,327 8 0

40. The following is a list of works carried out during the year through the agency of the Public Works Department :—

No.	Name of Work.	Amount of Expenditure.
	Originals.	Rs. a. p.
	East Thána.	
1	Additions and alterations to the Forest Depôt house at Vásind ...	190 14 9
2	Do. do. do. at A'tgaon...	190 15 8
3	Do. do. to the Forest Ranger's office and residence at Khardi.	1,314 15 5
	West Thána.	
1	Additions and alterations to the Range Forest Office at Kelve Máhim.	18 7 7
2	Repairing the ground floor of the Range Forest Office at Dáhánu.	20 0 0
3	Constructing a Forest Depôt house at Vangaon	1,228 7 10
4	Additions and alterations to the Range Forest Office at Bassein.	101 8 0
	Total ...	3,065 5 3
	Repairs.	
	East Thána.	
1	Repairs to the Range Forest Office at Murbád	24 14 9
2	Do. do. at Khardi	45 0 0
3	Do. do. at Wáda	19 15 10
4	Do. do. at Bhiwndi	25 0 0
5	Do. Forest Depôt house at A'tgaon	14 15 9
6	Do. do. at Kássára	14 15 0
7	Do. do. at Vásind	14 15 3
8	Do. do. at Vángni	14 14 7

No.	Name of Work.	Amount of Expenditure.
	REPAIRS—*continued.*	
	West Thána.	Rs. a. p.
1	Repairs to the Range Forest Office at Bassein	24 6 0
2	Do. do. at Thána	19 5 2
3	Do. do. at Kelve Máhim ...	24 14 7
4	Do. Forest Depôt house at Manor	14 14 8
5	Do. do. at Sawta	14 15 6
6	Do. do. at Pálghar	13 14 6
7	Do. do. at Sanján	14 15 9
		302 1 4
	Total ...	3,367 6 7

(*b*).—PROTECTION OF FORESTS FROM INJURY.

(1)—*General Protection and Breaches of Forest Law.*

(*a*).—*General Protection.*

41. The protective establishment has remained unchanged during the year.

42. Reference was made last year (paragraph 62) to the weakness of the establishment for the work required of it. Nearly all the Divisional Forest Officers record a similar complaint this year and for the most part are supported by the Collectors as may be seen from the remarks recorded by the latter, in forwarding the divisional reports, which are given at length in the concluding chapter of this report (para. 121)

43. In the Dángs especially it is found most difficult to obtain recruits to fill vacancies as the pay is not considered sufficient to out-balance the deadly climate and the isolation from families and caste.

44. The other remarks recorded under this head last year hold good.

(*b*).—*Breaches of Forest Law.*

45. The following is a comparative statement of the cases tried before Magistrates for breaches of the Forest law during the year under report and the preceding year :—

No.	Division.	1892-93.		1893-94.		Percentage of failures.	
		Prosecutions.	Acquittals.	Prosecutions.	Acquittals.	1892-93.	1893-94.
1	East Thána	110	43	152	55	39	36·1
2	West Thána	108	17	62	31	15·7	50·
3	Surat	3	...	2	...	...	...
4	Panch Mahálś	13	2	14	3	15·4	21·4
	Total ...	234	62	230	89	26·5	38·7

46. The number of cases, it will be seen, is almost the same as last year (though last year's figures were for 15 months), but the increased proportion of acquittals is to be regretted. The Divisional Forest Officer, West Thána, attempts an explanation which, however, is not accepted by the Collector. It must be remembered that the total number of cases is very small to give a

steady average and a very few actual extra acquittals make the proportional increase look enormous. I think that this is the real explanation of the fluctuation. This increase, however, coming in continuation of that reported last year, is unfortunate.

47. In the following statement comparison is made between the numbers of cases in which prosecutions were instituted for the two years 1892-93 and 1893-94 under the four different heads of crime, as prescribed by the Forest Department Code:—

No.	Division.	Injury to Forest by Fire.		Unauthorized felling or appropriation of Wood and minor Forest Produce.		Grazing without Permission or in Tracts in which Grazing is prohibited.		Other offences.		Total.	
		1892-93.	1893-94.	1892-93.	1893-94.	1892-93.	1893-94.	1892-93	1893-94.	1892-93.	1893-94.
1	East Thána ...	7	4	125	151	2	5	2	9	136	169
2	West Thána ...	2	2	97	60	5	1	8	9	112	72
3	Surat	...	...	2	1	...	1	1	...	3	2
4	Panch Mahals ...	...	1	11	14	1	2	...	...	12	17
	Total ...	9	7	235	226	8	9	11	18	263	260

48. The following table exhibits the nature and character of the offences tried by Magistrates during the year under report:—

No.	Division.	Offences relating to the misappropriation of				Total.
		(a) Timber.	(b) Firewood.	(c) Minor Forest Produce.	(d) Other offences.	
1	East Thána	81	43	22	6	152
2	West Thána	37	15	3	7	62
3	Surat	1	...	...	1	2
4	Panch Mahals	9	2	...	3	14
	Total ...	128	60	25	17	230

49. The classification of undetected cases is given below:—

No.	Division.	Injury to Forest by Fire.		Unauthorized felling or appropriation of Wood and minor Forest Produce.		Grazing without Permission or in Tracts in which Grazing is prohibited.		Other offences.		Total.	
		1892-93.	1893-94.	1892-93.	1893-94.	1892-93.	1893-94.	1892-93.	1893-94.	1892-93.	1893-94.
1	East-Thána ...	152	234	270	460	...	...	...	...	422	694
2	West Thána ...	177	126	128	119	...	...	29	4	334	249
3	Surat	...	...	...	...	...	...	...	...	...	...
4	Panch Mahals ...	...	...	26	27	...	...	...	...	26	27
	Total ...	329	360	424	606	...	...	29	4	782	970

50. The following statement shows the number of cases decided by Revenue officers under Section 43 of the Land Revenue Code, in the Thána District, as compared with that of the previous year:—

Number.	Divisions.	1892-93.					1893-94.				
		Number of Cases.	Value of Forest Produce.	Acquittals.	Convictions.	Amount of Fines.	Number of Cases.	Value of Forest Produce.	Acquittals.	Convictions.	Amount of Fines.
			Rs. a. p.			Rs. a. p.					Rs. a. p.
1	East Thána	12	49 7 0	...	12	50 1 0	10	50 3 0	...	10	50 0 6
2	West Thána	4	159 15 6	...	4	159 15 6	11	432 8 0	...	11	598 5 0
	Total ...	16	209 6 6	...	16	210 0 6	21	482 11 0	...	21	648 5 6

51. A comparative statement showing the number of cases compromised under Section 67 of the Indian Forest Act and those taken into Court, is given below :—

No.	Divisions.	Taken into Court.		Compounded under Section 67 of the Forest Act.		Total Number of Cases.	
		1892-93.	1893-94.	1892-93.	1893-94.	1892-93.	1893-94.
1	East Thána	153	212	173	87	326	299
2	West Thána	121	84	122	77	243	161
3	Surat	3	2	17	7	20	9
4	Panch Maháls	14	18	107	73	121	91
	Total ...	291	316	419	244	710	560

52. The classification of the cases compounded during the year is as follows :—

Number.	Division.	Offences relating to the misappropriation of.				Total.
		(a) Timber.	(b) Firewood.	(c) Minor Forest Produce.	(d) Other offences.	
1	East Thána...	39	14	19	15	87
2	West Thána	50	...	26	1	77
3	Surat	4	3	...	...	7
4	Panch Maháls	54	14	...	5	73
	Total ...	147	31	45	21	244

53. In 46 cases the offence was treated as trivial and the offenders were merely warned; the number of similar cases last year was 72.

54. The following statement gives the details in respect of money paid as compensation for forest offences compounded under Section 67 of the Forest Act during 1893-94 :—

Number.	Division.	Number of Cases compounded and in which Compensation has been accepted.	Amount of Compensation.	Remarks.
			Rs. a. p.	
1	East Thána...	87	283 5 3	
2	West Thána	77	313 6 6	Rs. 93 were not recovered at the end of the year.
3	Surat	7	8 7 6	
4	Panch Maháls	73	153 0 0	
	Total ...	244	758 3 3	

55. The 244 cases of compounded offences are classified according to the amount of the fine paid in the following statement :—

No.	Division.	No. of Cases in which Compensation was fixed at Rupees																						
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	30 to 39.	40 to 49.	80	
1	East Thána ...	51	10	1	4	3	5	2	...	1	2	2	...	2	...	2	...	...	...	...	...	1	...	...	1	87
2	West Thána ...	34	17	3	5	3	3	1	1	...	...	...	1	1	...	...	3	...	...	1	...	2	...	2	...	77
3	Surat	3	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7
4	Panch Mahális ...	42	10	7	3	3	1	3	...	...	...	1	...	...	...	...	...	...	...	2	...	...	1	...	...	73
	Total ...	130	40	12	12	9	9	6	1	1	2	3	1	3	...	2	3	...	...	3	...	3	1	2	1	244

56. The information given in the following statement is in accordance with paragraph 11 of Government Resolution No. 1899, dated 15th March 1891 :—

No.	Division.	Number of complaints disposed of under Section 67.	Number of cases in which Compensation has been accepted.	Number of appeals against the proceedings.	Manner in which the appeals have been disposed of.	Remarks.
1	East Thána ...	87	87	...	...	
2	West Thána ...	114	77	...	...	In 37 cases offenders were let off with a warning.
3	Surat ...	10	7	...	...	Do. 3 do. do.
4	Panch Mahális ...	79	73	...	...	Do. 6 do. do.
	Total ...	290	244	...	...	46

(b) (2)—*Protection from Fire.*

57. The results of the year's fire protection, as compared with those of the year 1892-93, are shown below :—

Number.	Division.	Forest Area placed under protection against Fire.		Acreage burned.		Percentage burned.	
		1892-93.	1893-94.	1892-93.	1893-94.	1892-93.	1893-94.
		Acre.	Acres.	Acres.	Acres.	Acres.	Acres.
1	East Thána ...	451,956	451,907	18,515	17,700	4·09	3·9
2	West Thána ...	358,719	247,344	5,462	6,680	1·5	2·7
3	Surat	478,141	478,237	434,990	443,747	90·9	92·8
4	Panch Mahális ...	213,575	217,530	3,944	17,276	1·8	7·9
	Total ...	1,502,391	1,391,018	462,911	485,403	30·7	34·9

58. The areas recorded as burnt are much the same as those of last year, except in the Panch Mahális, where four times last year's area is reported to have been burnt in 1893-94. Mr. Fisher attributes this to more correct reporting of areas burnt. He writes : "The above figures are no doubt misleading and should be taken to indicate the submission of more complete reports of the areas burnt. There is no doubt that last year the area burnt was much under-estimated and often no reports at all were submitted. This matter having received special attention the system of reporting was much better carried out. Probably no greater area was burnt this year than last." The Collector, it will be seen (para. 121), does not attach much weight to this recorded opinion. I confess, I think, the reason advanced by Mr. Fisher is the true one for a large part of the difference, for there is no reason why the area burnt should have so largely increased, especially when, as stated by Mr. Fisher, his attention was specially directed to fire protection.

59. The Thána system of fire protection was in force during the year in Surat and the Panch Mahális.

60. It is satisfactory to be able to record that there is almost unanimous testimony to the general good-will of the villagers in assisting to extinguish fires.

61. The following is a statement showing the expenditure on burning fire lines and paying rewards to villagers, &c.:—

No.	Division.	Expenditure.		Remarks.
		1892-93.	1893-94.	
		Rs.	Rs.	
1	East Thána	1,576	1,520	
2	West Thána	2,029	2,520	
3	Surat	186	380	
4	Panch Mahals	...	69	
	Total ...	3,791	4,489	

(b) (3).—Regulation of Grazing and Protection from Cattle.

62. In paragraph 97 of last year's report a mistake was made inasmuch as the introduction of the grazing rules in the Panch Mahals Division was said to be in contemplation whereas they had actually been introduced. With this exception that paragraph might stand in the present report.

63. Dr. Pollen, Collector of the Panch Mahals, writes doubtfully both of the necessity and the actuality of the closure against grazing in his district (*vide* para. 121). This failure was attributed in last year's report (para. 100) to the inefficiency of the establishment, and I think to this may be added want of the organization of the forests. Both these adverse factors, it is to be hoped, will be removed in the near future.

64. The following statement gives the number of animals impounded for trespassing in the open and closed forests during the year:—

No.	Division.	From open Forests.		From closed Forests.		Total.	
		1892-93.	1893-94.	1892-93.	1893-94.	1892-93.	1893-94.
1	East Thána ...	421	230	1,260	2,086	1,681	2,316
2	West Thána ...	67	161	1,598	1,280	1,665	1,441
3	Surat	314	1,070	927	1,869	1,241	2,939
4	Panch Mahals ...	1,464	661	226	1,980	1,690	2,641
	Total ...	2,266	2,122	4,011	7,215	6,277	9,337

There is an increase in the total of 50 per cent., chiefly in Surat and Panch Mahals, but in actual numbers the increase is not large, and at any rate in Surat, is declared by the Collector to be "not excessive." Dr. Pollen writes severely about the increase in his district; but with all due deference to his recorded opinion I would submit that a total of 2,641 animals impounded in a district with a forest area of nearly 150,000 acres cannot be called excessive. The now almost universally accepted opinion that the admission of cattle is detrimental to forest growth does not, however, seem to be accepted by Dr. Pollen.

Fencing.

65. No new fences were erected in the East Thána Division but the old ones were kept in repair.

66. In the West Thána Division the work left unfinished last year was completed and very little new work carried out. This latter was in the Bassein Range where altogether during the year 35,003 running feet of fencing was completed at a cost of Rs. 710.

67. No fencing work of any kind was done in the Surat Division, but in the Panch Mahals 60 acres were enclosed with wire, to form a plantation, at a cost of Rs. 449.

Civil Suits.

68 The appeal made to the High Court by the *Isáfatdár* of Amgaon in the Váda Range of the East Thána Division against the decision of the District Court in the suit referred to in para. 111 of last year's report was not heard before the close of the year.

69. An original suit against the Forest Department was filed in the District Court of Thána by one Jan Mahamed Allana of Bombay for the recovery of damages amounting to Rs. 1,750 on account of the exclusion of $11\frac{3}{4}$ acres from the area of the coupe for 1890-91 at Kanher in the Bassein Range after its purchase by him. The suit was, however, compromised by payment of the claim under Government Resloution No. 8211, dated 10th November 1893.

Criminal Cases.

70. A forest guard, Vazirkhán Chándkhán, in the Kalyán Range, East Thána Division, was prosecuted for connivance in a theft of timber and was sentenced to two months' rigorons imprisonment, and the sentence was confirmed on appeal.

71. Another forest guard, Náráyan Balwant Khánolkar, in the West Thána Division, was prosecuted for an almost exactly similar offence, with the result that the convicting Magistrate sentenced him to pay a fine of Rs. 50, which sentence was upheld by the Appellate Court.

72. Both these men were of course dismissed and have since been gazetted as ineligible for any Government service.

IMPROVEMENT OF FOREST GROWTH.

(1).—*Natural Reproduction.*

73. Natural reproduction was reported by all the Divisional Forest Officers as fair during the year. In some places fires and grazing are said to have retarded it to some extent. No special cases are recorded from any division.

(2).—*Artificial Reproduction.*

74. In the two Thána divisions artificial reproduction by broad-casting of seed and transplantation of seedlings was confined to the exploited coupes. The results were fairly satisfactory. These cultural operations are partly done by forest guards and partly by paid labour.

75. The regular plantations in the West Thána Division at Deheri, Dáhánu and Persik, which are maintained for experimental and teaching purposes. showed fair results. They contain casuarina, sandal, date, Inga dulcis and other species.

76. The fodder reserves which are situated close to the B. B. & C. I. Railway line in the Máhim Range and which have hitherto been shown as plantations, because it was the custom for many years past to make plantations therein, were during the year finally classed as fodder reserves. These reserves from their situation will always return a far higher sustained revenue and a more urgently required produce yield under grass than they would under timber. Further attempts to produce forest growth in them is therefore deemed undesirable. The existing timber growth, which in places is considerable, will, however, be maintained.

77. In East Thána the small regular plantations undertaken in several places are said to have met with a modified degree of success.

78. In Surat, in addition to the regular transplanting operations in exploited coupes, the plantation near Tithal, referred to in paragraph 130 of last year's report, was continued and towards the close of the year was largely extended, but the results of this operation belong to next year's report.

79. In the Panch Mahâls an area of 60 acres was fenced with wire and sown in furrows 3 feet apart, but unfortunately the early promise of this plantation was falsified owing to the area being traversed by fire.

80. A total of 39,555 acres was treated at a cost of Rs. 1,948 under the head of "Cultural Operations" and Rs. 325 were spent on regular plantation during the year.

(3).—*Early Thinning.*

81. No such operations were carried out in this Circle.

(4).—*Other operations for the improvement of the growing Stock.*

82. Creeper cutting by forest guards was carried out as usual, but these men have so much to do that not nearly enough of this work is done and the whole establishment have their hands so full with the yearly increasing work in connection with the coupes that it is impossible to make any organized attempt to do this work with this agency. In West Thâna, however, an effort was made to clear away the "bindukli" (Loranthus longiflora, a species of mistletoe) by paid labour from the standards reserved in the coupes. This operation cost Rs. 108.

(5).—*Experiments.*

83. The Vejâlpur nursery, near Tithal in Surat, reported under this head last year (para. 130), has been transferred to plantations and noticed above. No other experiment is reported as having been tried during the year.

(*d*).—Exploitation of Major Forest Produce.

84. The Thâna forests continue to be worked on a system of coppice with standards with a revolution of 40 years. The reservation of standards is theoretically made to depend on the local conditions. The operation, therefore, varies from coppice with a few reserves to a fairly heavy improvement felling. It is evident that the controlling officers can do little personally in selecting reserves, but as the executive subordinates gain experience and are more and more composed of trained men, this selection of standards in accordance with local conditions will become more and more an important factor in forest working. As far as possible, the trees are sold standing under a contract for each coupe, the price being fixed in a lump sum for each coupe by public sale. Coupes for which no price, or only an inadequate one, can be obtained are worked departmentally, when local conditions require that leaf manure and wood for local consumption should be supplied. In the 284 blocks into which the forest area of the two Thâna divisions is provisionally divided, 276 coupes were laid out for exploitation during the year (coupes were not laid out in the other blocks because either they are classed as "climatic" and exempted from working or because owing to settlement in progress it was thought undesirable to work them). Of these, 126 were sold in each of the two divisions, but in addition to these, 40 coupes which had remained unsold in past years in East Thâna were sold and exploited. The total area brought under the axe was 8,029½ acres in East Thâna and 6,450 acres in West Thâna.

85. In one block only in East Thâna was it found necessary to exploit the coupe departmentally.

86. In the Surat Division exploitation was limited to the Dângs leased forests in which 11,213 cubic feet of green teak were exploited by selection felling, these forests not yet having come under organization. In the rest of the division the forests were not worked, the demand being met from revenue lands outside forests.

87. In the Panch Mahâls the forests were not worked, the material required to meet the demand being obtained from lands outside forest.

(*e*).—Extraction and Transport of Major Forest Produce by Land and Water.

88. There is nothing to be added to what was recorded under this head last year.

(*f*).—Exploitation of Minor Forest Produce.

(1).—*Extraction of Fodder.*

89. Wherever there was a demand the grass of the reserves was sold standing and removed by the purchasers throughout the Circle, but the demand for the cut fodder from forest is nowhere great and the whole revenue from this source was only Rs. 19,677.

(2).—*Grazing.*

90. No trustworthy statistics of cattle grazed free and on payment of fee are available, nor can be until the grazing rules are made uniformly applicable to the whole Circle. The Divisional Forest Officers of East and West Thána agree in reporting that concessions of free grazing are too freely made by village officers, and even where the rules are in force they are too liberally construed. The result is a paltry revenue of Rs. 8,979 for the whole Circle and of Rs. 4,224 only for the two Thána divisions. The value of the revenue conceded it is impossible to calculate, but the amount mentioned in paragraph 145 of last year's report is certainly not an exaggeration.

(3).—*Miscellaneous Produce.*

91. The miscellaneous products exploited for sale from the forests of the Northern Circle are of no great moment. There is a little hirda (Terminalia chebula) in East Thána; but the concession of the right to hirda in occupied lands makes its exploitation most difficult owing to the facilities for theft thus caused. Hirda has been hitherto collected departmentally, but this year the farm was sold.

92. There is a certain demand in Bombay for leaves of apta (Bauhinia racemosa) for smoking and of Borassus flabelliformis for thatching, and these were farmed in the two Thána divisions. The collection of moho (Bassia latifolia) flowers is farmed in the Surat Division and the revenue may develope, but is small at present.

CHAPTER III.

GROSS YIELD AND OUTTURN OF FOREST PRODUCE.

DEPARTMENTAL OPERATIONS.

93. Timber and firewood was worked out during the year as follows :—

No.	Division.	Year.	In Cubic Feet.	
			Timber.	Firewood.
1	East Thána	1892-93	32,550	20,376
		1893-94	3,351	1,106
2	West Thána	1892-93	1,245	4,714
		1893-94	2,423	9,255
3	Surat...	1892-93	77,685	.....
		1893-94	62,523	.....
4	Panch Mahals	1892-93	4,070	10,700
		1893-94	3,710	11,375
	Total ...	1892-93	1,15,550	35,790
		1893-94	72,007	21,736

94. The chief difference from last year is in Thána where it was only found necessary to work one coupe departmentally owing to the satisfactory sale of the remainder.

95. As last year an abstract of the details given in Form 59 is given below :—

No.	Division.	Balance on 1st July 1893.			Outturn of the year.			Total of Columns 5 and 8.	Disposed of during the year.			Balance on 30th June 1894.		
		Timber.	Fire-wood.	Total.	Timber.	Fire-wood.	Total.		Timber.	Fire-wood.	Total.	Timber.	Fire-wood.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
		C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.	C. ft.
1	East Thána	..	..	..	3,351	1,106	4,457	4,477	3,279	1,106	4,385	72	..	72
2	West Thána	1,344	2,250	3,594	2,423	9,255	11,678	15,272	1,842	11,405	13,247	1,925	100	2,025
3	Surat	3,707	..	3,707	62,523	..	62,523	66,230	44,347	..	44,347	21,883	..	21,883
4	Panch Mahâls	820	2,300	3,120	3,710	11,375	15,085	18,205	3,744	8,320	12,064	786	5,355	6,141
	Total ..	5,871	4,550	10,421	72,007	21,736	93,743	104,184	53,212	20,831	74,043	24,666	5,455	30,121

96. The only figure in the above calling for remark is the large balance in Surat at the close of the year which represents the stock in the Wágrech Sale Depôt near Billimora, Surat District, consisting of wood brought for sale from the Dángs.

REMOVAL OF PRODUCE BY PURCHASERS.

Timber and Firewood.

97. The exploitation of major produce by contractors under the Thána working scheme compared with that of 1892-93 was as follows :—

No.	Division.	Coupes exploited.							
		1892-93.				1893-94.			
		Number.	Area.	Receipts.	Average price per Acre.	Number.	Area.	Receipts.	Average Price per Acre.
				Rs.				Rs.	
1	East Thána ...	85	4,711¼	92,551	19·4	146	8,029½	1,89,316	23·6
2	West Thána ...	140	7,321¼	2,62,253	35·8	124	6,450	2,69,238	41·8
	Total ...	225	12,032¾	3,54,804	29·5	270	14,479½	4,58,554	31·7

98. The rise in the sale rate per acre in both divisions is most satisfactory, especially when it is remembered that, as recorded elsewhere in this report, more than 20 of the coupes exploited this year were coupes for which no sale could be found in past years.

99. The gross produce yield of the coupes worked is estimated by the Divisional Forest Officers as follows :—

No.	Division.	Timber in Cubic Feet.		Firewood, including Charcoal, in Cubic feet.
		Teak.	Jungle-wood.	
1	East Thána	1,061,071	530,536	2,027,885
2	West Thána	1,149,958	489,916	1,841,200
	Total, 1893-94 ...	2,211,029	1,020,452	3,869,085
	Total, 1892-93 ...	1,660,165	943,487	3,616,843

100. This estimate, however, does not include the small branchage and dead wood which under concession of Government are removed by the local villagers. The amount of this small wood cannot be estimated, there being absolutely no data. A guess last year put it at 600,000 cubic feet. I should think this was rather under than over the mark.

101. The timber and firewood removed by purchasers in Surat was as follows:—

Year.	Timber.	Firewood.
	Cubic ft.	Cubic ft.
1892-93	68,690	30,739
1893-94	71,634	14,822

102. The whole of this timber was practically from the Dángs, less than 5,000 cubic feet being obtained in the rest of the Division, and of this 5,000 nearly 3,000 cubic feet came from the Mándvi Range. On the other hand the bulk of the 14,822 cubic feet of firewood came from Mándvi, only about 5,000 being exploited in the Dángs.

103. In the Panch Maháls the year's working compares with that of last year as follows:—

Year.	Timber.	Firewood.
	Cubic ft.	Cubic ft.
1892-93	208,068	242,281
1893-94	195,245	415,696

104. As last year the timber shown as exploited is the produce of Government land outside forest.

Bamboos.

105. The yield of bamboos is given in the following table:—

No.	Division.	Bamboos removed, 1892-93.				Bamboos removed, 1893-94.			
		Cart-loads.	Head-loads.	Number.	Amount realized.	Cart-loads.	Head-loads.	Number.	Amount realized.
					Rs.				Rs.
1	East Thána	1,086	6,386	288,673	9,004	40	7	228,890	815
2	West Thána	8,655	5,525	2,027,223	12,705	7,166	2,451	2,332,393	18,127
3	Surat	...	...	1,136,155	25,354	...	...	901,558	25,474
4	Panch Maháls ...	193	...	217,272	2,899	135	...	117,051	1,484
	Total ...	9,934	11,911	3,669,323	49,972	7,341	2,458	3,579,892	45,900

Minor Produce.

106. The following comparative statement gives the yield of minor produce for the year:—

Number.	Division.—	1892-93.	1893-94.
1	East Thána	655	2,747
2	West Thána	2,475	2,436
3	Surat	2,103	2,162
4	Panch Maháls	2,371	583
	Total Rs. ...	7,604	7,928

FREE GRANTS OF FOREST PRODUCE.

107. The free grants of timber, &c., made under the authority of the Commissioner during the year, as compared with those of last year, are given below :—

Number.	Division.	1892-93.			1893-94.		
		Rs.	a.	p.	Rs.	a.	p.
1	East Thána	378	8	0	1,618	0	0
2	West Thána	49	12	0	30	0	0
3	Surat	703	0	0	473	0	0
4	Panch Mahals... ...	729	4	0	836	0	0
	Total ...	1,860	8	0	2,957	0	0

108. The large increase in East Thána is probably due to a grant made to the villagers of Dughád in the Bhiwndi Range whose houses were destroyed by fire.

CHAPTER IV.

FINANCIAL RESULTS.

109. The financial results of the year under report are a record. Last year Mr. Dasái considered them satisfactory though the gross receipts and net revenue were respectively less by Rs. 2,000 and 5,000 than those of 1890-91. During 1893-94 they are greater than the figures of 1890-91 by just over and just under 1¼ lákhs of rupees respectively.

110. The following statement gives the details by main heads of revenue and expenditure for 1892-93 and 1893-94 :—

Budget Main Heads.	1892-93.			1893-94.		
RECEIPTS.	Rs.	a.	p.	Rs.	a.	p.
I	50,554	2	9	26,602	7	1
II	5,67,576	14	8	6,75,989	11	10
III	2,071	6	2	3,089	0	3
IV	1,569	4	2	36,709	15	11
V	13,676	14	5	18,562	10	4
Total, Receipts ...	6,35,448	10	2	7,60,953	13	5
Expenditure.						
A.—Conservancy and Works.						
A.—I	7,692	5	5	17,662	1	3
A.—II	12,040	1	0	12,366	8	6
A.—III	57	7	0	103	2	11
A.—IV	.....			.....		
A.—V	16,963	4	6	15,780	9	2
A.—VI	1,303	12	6	490	10	9
A.—VII	4,136	4	1	7,327	8	0
A.—VIII	70,783	2	4	38,473	9	10
A.—IX	762	8	2	5,842	10	10
Total, A—Conservancy and Works ...	1,14,008	13	0	98,046	13	3
B.—Establishments.						
B.—I	1,30,544	2	9	1,39,194	10	2
B.—II	18,889	14	1	20,522	14	7
B.—III	5,843	9	1	7,182	2	0
Total, B.—Establishments...	1,55,277	9	11	1,66,899	10	9
Grand Total, Expenditure...	2,69,286	6	11	2,64,946	8	0
Net Revenue ...	3,66,162	3	3	4,96,007	5	5

111. From the above it will be seen that the gross receipts are 1¼ lákhs in excess of those of 1892-93. There was a decrease of Rs. 24,000 under I.—*Departmental Working*, which was much more than balanced by an increase of over one lákh obtained by the sale of coupes to contractors (II). This is in every way satisfactory as showing the steadily increasing demand for the standing coupes at enhanced rates which renders departmental working unnecessary. There was a large fluctuation under IV.—*Revenue from forests not managed by Government.* The amount credited in 1892-93, *viz.* Rs. 1,569, was obtained from shares of inám forests sold in Thána. In 1893-94 there was Rs. 1,702 revenue from this source in Thána, and the Government share of 3 inám villages in the Panch Maháls, of which the forests were sold during the year, amounted to Rs. 35,000.

112. The total expenditure shows a decrease of rather more than Rs. 4,000 over that of 1892-93. This, however, is made up of a decrease of nearly Rs. 16,000 under A.—*Conservancy*, and an increase of Rs. 11,600 under B.—*Establishments.* This increase is due chiefly to the pay of Mr. Duxbury who was attached to this Circle during the year, to promotions, &c.

113. The decrease under A, however, is more complicated. It is composed mainly of (1) an increase of Rs. 10,000 expenditure under A. I.—*Departmental Working* debited in the Surat Division during the year though belonging to 1892-93; (2) an increase of Rs. 5,000 due to Law Charges in West Thána (sanctioned in Government Resolution No. 8211, dated 10th November 1893), and (3) expenses on account of uniforms belonging to 1892-93, but debited during the year under report. This increase is more than balanced by a decrease of over Rs. 30,000 under *A. VIII.—Organization, Improvements, &c.* This decrease, however, is mainly due to the inflation of the expenditure under this head in 1892-93 on account of payments for Land Compensation in connection with the catchment area of the Tánsa Lake.

114. The following statement gives the financial results of the Northern Circle as now constituted for the past 10 years :—

	Receipts.	Expenditure.			Net Revenue.
		A.	B.	Total.	
	Rs.	Rs.	Rs.	Rs.	Rs.
1883-84... ...	4,83,560	1,00,631	65,392	1,66,023	3,17,537
1884-85... ...	4,98,329	1,78,621	80,624	2,59,245	2,33,925
1885-86... ...	5,25,484	76,742	1,42,953	2,09,695	3,15,789
1886-87... ...	4,43,157	89,724	1,44,507	2,34,231	2,08,926
1887-88... ...	4,73,104	85,645	1,45,407	2,31,052	2,42,052
1888-89... ...	5,78,425	88,924	1,47,364	2,36,288	3,42,137
1889-90... ...	5,96,066	93,419	1,45,341	2,38,760	3,57,306
1890-91... ...	6,37,408	1,04,809	1,39,880	2,44,689	3,92,719
1891-92... ...	6,14,270	93,399	1,30,089	2,23,488	3,90,782
1892-93... ...	6,82,884	1,38,639	1,96,486	3,35,125	3,47,759
1893-94... ...	7,60,953	98,047	1,66,899	2,64,946	4,96,007

Note.—The figures for the years 1883-84 to 1891-92 inclusive are for the financial year from 1st April to 31st March and those for 1892-93 and 1893-94 are for the forest year from 1st July to 30th June.

CHAPTER V.

FOREST ADMINISTRATION.

ADMINISTRATIVE CHARGE.

115. Mr. F. R. Dasái, Deputy Conservator of Forests, was in charge of the Circle practically for the whole year under report. He was relieved by undersigned on the 28th April 1894.

CONTROLLING CHARGES.

116. There was no change in the divisional charges during the year.

117. The various divisions were held by officers as follows :—

No.	Division.	Name of Officer.	Rank.	Designation.	Period of holding charge. From	To
1	East Thána ...	C. Greatheed ...	Deputy Conservator of Forests, 3rd Grade.	Divisional Forest Officer.	1st July 1893 ...	30th June 1894.
2	West Thána ..	G. P. Millett ...	Do. do. 4th Grade.	Do. ...	Do. ...	10th April 1894.
		T. B. Fry	Do. do. 2nd Grade.	Do. ...	11th April 1894 ...	9th May 1894.
		G. P. Millett ...	Do. do. 4th Grade.	Do. ...	10th May 1894 ...	30th June 1894.
3	Surat	W. A. Wallinger ..	Extra Assistant Conservator of Forests, 2nd Grade.	Do. ...	1st July 1893 ...	Do.
4	Panch Mahále .	W. F. D. Fisher ...	Assistant Conservator of Forests, 2nd Grade.	Do. ...	Do. ...	4th September 1893.
		A. N. Master ...	Extra Assistant Conservator of Forests, 4th Grade.	Do. ...	5th September 1893.	5th October 1893.
		W. F. D. Fisher ...	Assistant Conservator of Forests 2nd Grade.	Do. ...	6th October 1893 ...	12th February 1894.
		F. R. Dasti... ...	Deputy Conservator of Forests, 1st Grade.	Do. ...	13th February 1894 .	28th February 1894.
		A. N. Master ...	Extra Assistant Conservator of Forests, 4th Grade.	Do. ...	1st March 1894 ...	12th April 1894.
		W. F. D. Fisher ...	Assistant Conservator of Forests, 2nd Grade.	Do. ...	13th April 1894 ...	30th June 1894.
5	Working Plans.	T. B. Fry	Deputy Conservator of Forests, 2nd Grade.	Do. ...	1st July 1893 ...	4th August 1893.
		G. P. Millett ...	Do. do. 4th Grade.	Do. ...	5th August 1893 ...	4th November 1893.
		T. B. Fry	Do. do. 2nd Grade.	Do. ...	5th November 1893.	9th May 1894.
		G. P. Millett ..	Do. do. 4th Grade.	Do. ...	10th May 1894 ...	30th June 1894.

118. The following officers held charge of the sub-divisions during the year :—

No.	Division.	Name of Officer.	Rank.	Designation.	Period of holding Charge. From	To
1	East Thána ...	A. N. Master ...	Extra Assistant Conservator of Forests, 4th Grade.	Shahápur Sub-Division Forest Officer.	1st July 1893 ...	2nd September 1893.
		K. B. Phadke ...	Do. do. ...	Do. ...	3rd September 1893.	8th October 1893.
		A. N. Master ...	Do. do. ...	Do. ...	9th October 1893 ...	26th February 1894.
		C. Greatheed ...	Deputy Conservator of Forests, 3rd Grade.	Do. ...	27th February 1894.	16th April 1894.
		A. N. Master ...	Extra Assistant Conservator of Forests, 4th Grade.	Do. ...	17th April 1894 ...	30th June 1894.
		K. B. Phadke ...	Do. do. ...	Kalyán Sub-Division Forest Officer.	1st July 1893 ...	8th May 1894.
		A. N. Master ...	Do. do. ...	Do. ...	9th May 1894 ...	30th June 1894.
2	West Thána ...	V. D. P. Ribeiro...	Do. do. ...	Bassein Sub-Division Forest Officer.	1st July 1893 ...	16th September 1893.
		Shaikh Hassan Alli Mahomed Alli.	Acting do. do. ...	Do. ...	17th September 1893.	16th November 1893.
		V. D. P. Ribeiro ...	Extra do. do. ...	Do. ...	17th November 1893.	30th June 1894.
3	Surat	C. G. Dalia ...	Acting do. do. ...	Surat Sub-Division Forest Officer.	1st July 1893 ...	16th January 1894.
		W. A. Wallinger ...	Extra Assistant Conservator of Forests, 2nd Grade.	Do. ...	17th January 1894 .	16th February 1894.
		C. G. Dalia... ...	Acting do. do., 4th Grade.	Do. ...	17th February 1894 .	30th June 1894.

119. Mr. G. R. Duxbury, Assistant Conservator of Forests, a new recruit from Cooper's Hill, was posted to this Circle and was attached to the Circle office from 29th November to 2nd January 1894. From 3rd January he was placed under Mr. Millet, Divisional Forest Officer, West Thána, where he continued up to 4th June 1894, when he was transferred to the Central Circle.

GENERAL REMARKS.

120. Both the Thána Divisional Forest Officers report extensive clearing of the land by occupants put into possession of the junglewood trees growing on their numbers. Mr. Silcock takes a hopeful view in his memorandum sending on the East Thána report which I hope may prove well founded; my own experience leads me to a much less sanguine view.

121. The following are the minutes recorded by the various Collectors in forwarding the forest administration reports of their districts :—

(1) Mr. Silcock's minutes on the West Thána report :

"Mr. Millet has written an interesting report showing a record of good work during the year, but as undersigned is quite new to this district and the forest management therein, he is unable to criticise it in detail.

"2. It is satisfactory to find that the revenue is steadily increasing, while there is little or no friction with the people. It would be advisable, therefore, to somewhat increase the protective establishment, which is very heavily worked at present. The revenue can well afford a larger expenditure.

"3. From what undersigned has seen of the magisterial work of this district in connection with forest cases, and he has examined a large number since his arrival, he can hardly agree with Mr. Millett that failures of justice often occur. Mr. Millett naturally views all cases from the prosecutor's point of view, and hence his conclusion. The mere fact too that because certain people were willing to compound offences, it is proof positive that they had committed them is not a safe theory, as many will pay money to get off the inconvenience and expense of a prosecution even though they may be innocent.

"4. As regards the traffic in dead wood, notice has been issued that it must cease in the Sálsette Táluka from November 1st. The experience gained in this táluka will be useful when considering the advisability of issuing a similar prohibition in other tálukas. At present it might be a dangerous experiment to suddenly stop the trade in the whole district, and to make the prohibition effective would possibly require a considerable increase not only to the protective but also to the magisterial establishments of the district, and it is therefore better to proceed slowly.

"5. It is unfortunate that extensive fires in Bassein and Máhim should have occurred to spoil the fire record for the year, but deliberate incendiarism is very hard to prevent or detect; and as it appears very probable that these fires were owing to a revengeful spirit, they may be considered exceptional and that as a rule fire protection has been fairly satisfactory.

Fires.

"6. As regards the extension of the grazing rules to the whole of the Division as recommended by the Divisional Forest Officer in paragraph 52 of his report, undersigned sees no reason why this should not be done; but he finds from this office records that for some reason unknown it was arranged that the rules were only to be introduced as an experiment in three tálukas until the revision survey operations were concluded. How the revision survey can practically affect forest areas he does not understand, but he is not prepared to recommend the reversal of previous orders until he has had a more extended knowledge of the district and more especially until he sees how the rules have worked in the Kalyán and Bhiwndi Tálukas of the East Thána Division. The amount of fees collected in West Thána is comparatively trifling and shows a great decrease on the previous year's figures, and in Bassein itself the decrease is equally marked."

Cattle.

(2). Mr. Silcock remarks on the East Thána Divisional Forest Officer's report:—

"It is satisfactory to find that in this Division as well as in West Thána the forest revenue is steadily increasing and it should be possible now to increase the protective staff, as this seems badly wanted judging from the remarks of the Divisional Forest Officer in the 15th and following paras. of his report.

"2. While it is a matter of regret that there should have been such a wholesale exploitation by the cultivators of their injáili woods it was a natural result of their getting possession of them for the first time, but there is no reason to think that now they have got used to the idea of ownership they will go on with reckless cuttings to their own eventual loss.

"3. There has been a marked increase in forest offences during the year, which is not a very satisfactory feature, the number of undetected offences being especially large, fires too show a great increase; but it is not understood how the occurrence of fires can have been affected by the Government Resolution on the Forest Report for 1890-91. That the villagers are of themselves prompt in turning out to extinguish fires is somewhat satisfactory; possibly in time they will see it is to their advantage to prevent them altogether.

"4. As regards grazing, it is not understood whether the whole Division is dealt with or only the tálukas (two it is believed) in which the grazing rules are in force, and it would have been better had this been clearly shown. It would then have been possible to judge of the advisability of introducing the rules into the whole Division. It should not be impossible to carry out the test laid down in Rule XIII when anything wrong is suspected. It is not at all necessary that it should be done continuously and the time spent could not interfere much with the other forest duties while it might result in a considerable gain to Government. At present the revenue derived from "Grazing Fees" is very small for such a large Division.

"5. Mr. Greatheed has evidently been active in his movements during the year and has exercised considerable supervision over his subordinates. His report is clear and concise, but a little more with advantage might have been said regarding the use or abuse of privileges in forests."

(3). Mr. Lely, Collector of Surat, remarks on the Divisional report of the Forest Officer, Surat :—

"It is satisfactory that gradual progress is being made in demarcating the forests by cairns and to a certain extent by wire fencing. It is due to the rayats that the limits beyond which to go is trespass should be clearly defined.

"There has been a considerable expenditure on roads and buildings in the Dángs, but scarcely any in the Surat District.

"Prosecutions and compoundings under Section 67 have been, as Mr. Wallinger says, insignificant. The case in which the late Pátel of Tarsada is alleged to have been inadequately punished was not brought at the time to the notice of the District Magistrate. The proceedings have now been sent for. It appears however from the criminal calendar file that the fine inflicted was not Rs. 5 but Rs. 25.

"The chief trouble in this district is the frequency of fires. With the heavy destruction in the Dángs the undersigned is not specially concerned, but 11,491 acres burnt over in Mándvi out of a total reserved area of 41,164 acres cannot be considered "satisfactory." It is difficult to suggest a remedy that will at once be effective, but this much may at least be said that an essential preliminary is an increase in the protective establishment. This subject has been treated at length in this office No. 3398 of 10th Instant to the address of the Commissioner, Northern Division.

"Another means of stimulating the zeal of subordinates would be to authorize the Divisional Officer to give small rewards for special service. This system is found necessary in the police, and would be still more appropriate to a body of men who have to work hard at a distance from their homes under the depressing influences of isolation and bad climate. The personal recognition involved in a present of a rupee or two for some special merit would often encourage a man as much as a promotion which is not always possible. It would probably do much to improve the present low tone of the subordinate grades.

"The number of animals impounded shows a considerable increase but is not excessive.

"With regard to the proposed depôt at Surat, referred to in Mr. Wallinger's 69th paragraph, the undersigned was less anxious to see it established when it appeared by working out the figures that it would be impossible to supply firewood through it to the city of Surat so cheap as by private agency. As pointed out however by Mr. Wallinger, it would be a most valuable basis of operations for the forest timber trade and on this ground alone it is a pity that the Military authorities have raised exaggerated objections. Perhaps the matter may yet be reconsidered.

"With reference to the Divisional Officer's paragraph 76 there seems to have been some misunderstanding. The intention of the Collector is and always has been that the Forest Department as owner of toddy trees within their limits should levy a rent of one rupee per tree provided the lessee was a cultivator of the land or a licensed toddy retailer. The charges under the A'bkári Act would still remain to be collected. This arrangement is in accordance with the law and, in fact, is the only one practicable.

"The revenue returns are satisfactory, and on the whole the forest administration of the district has been successful."

(4). Mr. Cumine, Political Agent, Khándesh, remarks on the Administration Report of the Surat Division :—

"The part of it that concerns me is the part about the Dángs. I have not yet been in the Dángs at all. But from what Mr. Wallinger says it is evident that if the Dáng forests are to be conserved at all, more money must be spent on them. It is true that Mr. Wallinger on his part has, with the little money he had, done his best for us in the way of buildings and roads, though of course no real road could possibly be constructed, 16 miles in length, for Rs. 823. But I was not thinking of roads and buildings, nor of the money at Mr. Wallinger's command. I was thinking of increased establishment, of better paid establishment, of better protection from fire and cattle. If practically the whole area of Dáng forest is burnt over every year, as Mr. Wallinger says, and if forest fires really destroy seedlings to the extent that they are supposed to do, then the total destruction of the Dáng forests is only a question of time and not a very long time unless Government spend more money to try and prevent it. I cannot agree possibly because I do not know the Dángs—with what Mr. Wallinger says as to the good that would result to the Dáng people and the community generally from withdrawing most of the privileges at present allowed to the people. But with this exception all that Mr. Wallinger says about the Dángs is to be received with consideration as coming from one who has evidently devoted a deal of time and attention to that little-known country."

(5). Remarks on the Administration Report of the Panch Mahál Division :—

"If the forests of the Panch Mahál are not to be worked for many years to come, it is not understood why the Working Plans Officer should be hurried up here. Mr. Fisher says

this officer will be able to have his plans cut and dry, but it is just possible they may become unduly dried before they can be brought into operation with any advantage to the district.

"No doubt the demand for wood is steadily increasing; but judging from what he has seen of the jungles of the neighbouring States and the forest growth on waste lands in this district, it will, the undersigned thinks, be many a long year before the reserved forests of the Panch Mahâls are called upon to supply the wants of the timber trade. In the meantime there seems no necessity to expose more Europeans to the climate which Mr. Fisher not unjustly describes as 'deadly.'

"Mr. Fisher suffered much in health and could not get on with the demarcation work satisfactorily. He should have had the services of a native assistant.

"Little information of any value or importance can be gathered from the comparative statement of forest offences, and the Collector doubts the explanations which Mr. Fisher gallantly attempts. The same remark applies to forest fires. The forest administration here has not as yet reached such a state of perfection as to render comparisons of this kind instructive.

"The grazing rules are, strictly speaking, not applicable to the Panch Mahâls forests which are not yet being worked. One-third of the whole area is supposed to be closed and on the maps the closures look perfect enough; but in practice these closures have resulted in little or no benefit to the forests and inconsiderable annoyance to the people whose cattle have been freely impounded in places. The fact of the matter is the Panch Mahâls forests (for the most part) do not suffer in the least from being open to grazing, and little or no difference is observable between the condition of the closed and that of the unclosed tracts. More than four times the number of buffaloes and twice the number of cows and bullocks were impounded this year, while the number of impounded goats—the real mischief workers—only slightly increased. The amount of discontent caused throughout the country-side can be gauged by a consideration of these figures, while the advantage to the forests can be aptly represented by the figure 0.

"Government in the Public Works Department have pronounced most positively and emphatically against the use of barbed wire (*vide* Resolution No. 195 C. W.—802, Public Works Department, of 29th May 1893), but the Forest Department here uses no other and Mr. Fisher, not without reason, strongly upholds its use. Goats have little regard for wire of any other sort.

"Into the technical part of Mr. Fisher's report it is not for the Collector to go, but he notes that, as usual miscellaneous items of land revenue tend to swell the nominal forest income.

"The financial results show the large surplus of Rs. 31,255-10-6, due chiefly to an important sale effected by the Deputy Conservator while on tour in this district.

"Mr. Fisher was as usual devoted to duty and has proved himself an able, energetic, and observant Forest officer. Although in common with all the European officers he suffered severely in health, he managed to make an extensive tour, and his keen interest in his duties and zeal for the good of his Department continued unabated throughout the year.

"The Collector viewed his transfer from this district with regret."

122. Mr. Dasái records the following memorandum of his tour of inspection :—

"It having been brought to my notice that better prices would be obtained at the annual sales of timber and other forest produce if they were confirmed on the dates advertized for receiving tenders and holding auctions, I went early in August to Thána and to Surat in September for the purpose of being on the spot to accept the most desirable offers.

"(2). I commenced my cold weather tour on the 5th November and went to Thána to be present at a meeting called at the instance of the Collector to discuss the working of the orders recently issued by Government regarding the disposal of reserved trees in varkas lands.

"(3). Leaving Thána on the 12th, I marched through a part of the Kalyán Range inspecting timber and cultural operations and reached Murbád on the 26th. At this camp I met Mr. Greatheed, Divisional Forest Officer, East Thána, with whom some coupes in the neighbourhood were visited, as well as general questions of forest administration pertaining to his division were discussed. Mr. Duxbury, Assistant Conservator of Fosests, a new recruit from Cooper's Hill, reported himself for duty on the evening of the 29th, and taking him with me I passed rapidly through the Shahápur and Khardi Ranges, inspecting the forests and depôts met with on the way and reached Kására on the Thal Ghát on the 8th December.

"(4). From the 10th to the 16th my camp was in the Mokháda Range. The office and heavy baggage were sent to Surya Mal by road *viâ* Khardi and Párali, when I reached this place after visiting Vehigaum, Khodalla, Koshimshet and Mokháda. A more careful inspection of the forests in this Range than I was able to make last season has convinced me that the Thána Working Plan is inapplicable to them and will have to be modified.

Until there are greater facilities for export, it must be altered to suit local conditions. During this visit I also satisfied myself that the proposal to construct a road from Morkhadak in the Mokháda Petha to Trimbak in the Násik Collectorate will not benefit the forests at all as the line which it is to take will not tap any of the forests. An application, purporting to come from occupants, having roused my suspicions that it was not made in good faith, I took the opportunity of being on the spot to impress on the Revenue and Forest subordinates the necessity of keeping a sharp watch on the felling of reserved trees in varkas lands as I presume it is not the intention of Government that not over-scrupulous contractors on the Násik border should take undue advantage of their bounty to the rayats and enrich themselves at the expense of the State.

"(5). Camp moved to Váda on the 18th to Manor on the 20th, and reached Pálghar Station on the B. B. & C. I. Railway on the 22nd December.

"(6). After the Christmas vacation the office opened at Godhra in the Panch Maháls District, to which place it had gone by Railway in the meanwhile, and I marched through the forests of this Range and reached Jhálod on the 15th January. Here the Mahálkari brought to my notice that the sale depôt was inconveniently situated, and in his company I selected another site which is within municipal limits and consequently is more easy of access to the people than the old one, which is half a mile outside of the town. Camp moved to Gultora on the 19th where Mr. Fisher, Divisional Forest Officer, joined me. On the 23rd, ordering the camp to march to Himala in Dohad Táluka, I went to Limbdi to see the Collector of the Panch Maháls, Dr. J. Pollen, to discuss the forest business of the Collectorate and especially to come to an understanding in the matter of the disposal of teak trees in the inám lands of Khotada, Khamda, and Salya, in which Government is a co-sharer. The controversy had been of long standing and was intricate owing to the inámdárs having mortgaged their share to an influential Bohora in Godhra, and it was proposed that the Government share should also be sold to him for Rs. 20,000. On my advising the Collector that this price should not be accepted as I considered it inadequate, he left me to settle the matter at my discretion. Immediately on reaching Dohad, therefore, I called the inámdárs concerned and the mortgagee before me. The latter naturally held out as long as he could to his first offer of Rs. 20,000, but as I was quite confident that the Government share was at least worth Rs. 35,000, I stood firm and ultimately succeeded in getting him to agree to pay that price.

"(7). After seeing this business through, Mr. Fisher conducted me over the firewood felling operations which were in progress in the vicinity of Dohad in connection with the construction of the Godhra-Rutlam Railway, and as we were going to separate, he was seized with a persistent attack of fever. The Civil Surgeon having advised immediate change, I attached the Divisional Office to my own and allowed Mr. Fisher to proceed on a month's privilege leave to Bombay. With the two offices I then passed through the Kálol and Hálol Tálukas, reaching Kim in the Surat Division on the 27th February.

"(8). Unfortunately, at the very next camp, Usked, on my way to Mándvi, I myself was prostrated by influenza, and as the attack did not appear to be a mild one, I went into Surat on the 9th March and was under medical treatment till the 16th March. Leaving Surat in a native boat on the following day I travelled by sea to Wagrech, arriving at this depôt on the 19th.

"(9). After the Easter vacation the office opened at Balsár and on the 28th I assisted the Divisional Forest Officer at the auction sale of the Dáng timber stored at the Wagrech depôt. Mr. Wallinger accompanied me back to Balsár and stayed with me the two following days for the purpose of conferring on the Dáng timber operations, the establishment of a nursery at Lilápur and other forest questions affecting his Division.

"(10). A relapse of the influenza having come on, I was not able to leave Balsár till the 12th March, on which date I received a letter from the Private Secretary to His Excellency the Governor that Mr. Wroughton had been appointed to the Northern Circle and would relieve me on return from furlough. Consequently I had to give up my intention of passing a fortnight in the Dángs and to keep along the railway line in the Umbargaon and Dáhánu Ranges, so as to reach head-quarters on or about the date of his expected arrival."

123. I took over charge of the Circle from Mr. Dasái on the 27th April at Bándra, and the office from that date remained at head-quarters. The offices of the East and West Thána, Working Plans, and Surat Divisions were, however, inspected in the interval before the close of the year.

124. It will be seen that each of the Collectors recognizes the good work done by the Divisional officer whose work has come under his notice. Mr. Dasái wishes special mention to be made of the good work done by Messrs. Millett and Wallinger.

125. All the extra Assistants are reported to have worked well. Mr. Phadke however, has suffered considerably from fever, thus detracting from his efficiency.

126. During the year 3 Range Forest Officers retired from Government service on pension earned by long periods of approved service, *viz.* :—

Shekh Abas Shekh Alli Potrik, Ranger, Rs. 100, after 30 years' service, at the age of 60.

Wallabhram Mulji Bhat, Ranger, Rs. 80, on completing 30 years' service.

Bholanath Ranchordas, invalided after 27 years' service.

127. On the whole the Range Forest Officers have worked well during the year : the following are specially mentioned in the Divisional reports :—

1. Hasan Alli Mahomed Alli.
2. Mancharji Byramji.
3. Shekh Ahmed Nur Mahomed.
4. Sadashiv Pandurang Limaye.
5. Hari Anant Bhadbhade.
6. Ganesh Ramchandra Samant.
7. Shekh Usman Shekh Idrus.

128. In addition to the 2 men convicted of penal offences as mentioned in paragraphs 70 and 71, 15 Forest guards were dismissed during the year ; the reasons assigned being overstaying leave and general misconduct.

129. The Divisional office establishments are also reported to have worked well as has that of the Deputy Conservator under Mr. Shivram Bhikaji Rangnekar.

130. The mortality amongst the guards was rather heavier than last year. Twenty men are reported as having died in Thána and the Panch Mahâls, of whom 3 died of cholera and 1 of snake-bite in East Thána, and 1 in East Thána and 7 each in West Thána and the Panch Mahâls of fever. No deaths are reported from the Surat Division.

R. C. WROUGHTON,
Deputy Conservator of Forests, N. C.

Bándra, 12th October 1894.

B 1106—7 N. C.

FORM No. 46.

Forest Department, Bombay, Northern Circle.

Area of Reserved Forests, 1893-94.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st July 1893.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1894.		No. and date of Notification of addition or transfer.	Remarks.
			Acres.	Equivalent in Square Miles.	Acres.	Acres.	Acres.	Equivalent in Square Miles.		
1	2	3	4	5	6	7	8	9	10	11
				Sq. m. a.				Sq. m. a.		
East Thána* ...	Thána		2,25,825	352 545	4,526	159	2,30,192	359 432	Nos. 7806 24-10-93, 7956 30-10-93. Nos. 7962 30-10-93, 9070 11-12-93. Nos. 4360 17-5-94, 2683 17-4-94.	*Váda Range is included in this Division, and Talasri Mahál is excluded from this Division as per Government Resolution No. 935, dated 4th February 1893, Revenue Department.
West Thána† ...	Do.		2,00,221	312 541	46,362	2,681	2,43,902	381 62	Nos. 4567 24-5-94, 4609 23-5-94. Nos. 4610 28-5-94, 4619A 28-5-94. Nos. 5269 20-6-94, 5312 21-6-94.	†Talasri Mahál is included in this Division. Váda Range is excluded from this Division as per Government Resolution No. 935, dated 4th February 1893, Revenue Department.
Surat	Surat		43,902	68 382	95	...	43,997	68 477	Nos. 8939 5-12-93, 5041 11-6-94.	
Panch Mahals ...	Panch Mahals ...		1,40,156	218 636	73,431	57	2,13,530	333 410	Nos. 6026 21-8-93, 7215 4-10-93. Nos. 2971 30-4-94, 4653 29-5-94.	
		Total ...	6,10,104	953 184	1,24,414	2,897	7,31,621	1,143 101	Nos. 4907B 7-6-94, 4907C 7-6-94.	

Bándra, 15th October 1894.

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

FORM No. 46A.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Area of Protected Forests, 1893-94.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st July 1893.		Added during the year.	Excluded or transferred to other heads.	Area on 30th June 1894.		No. and date of Notification of addition or transfer.	Remarks.
			Acres.	Equivalent in Square Miles.	Acres.	Acres.	Acres.	Equivalent in Square Miles.		
1	2	3	4	5	6	7	8	9	10	11
East Thána ...	Thána	...	208,504	325·504	...	535	207,969	324·609	Nos. 6797 20-9-93, 7889 26-10-93, 8595A 24-11-93, 1227 15-2-94, 1892B 13-3-94, 2284 29-3-94, 4255 14-5-94, 4358 17-5-94.	
West Thána ...	Do.	...	176,216	275·216	...	98,786	77,430	120·630	Nos. 9018 8-12-93, 4567D 24-5-94, 4619C 28-5-94,	
Surat	Surat	...	...	...	...	...	...	...		
Panch Mahals ...	Panch Mahals ...	...	...	...	...	...	...	...		
		Total ...	384,720	601·80	...	99,321	285,399	445·599		

Bándra, 15th October 1894.

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

FORM No. 47.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Statement showing the Progress made in, and the Expenditure incurred on, Forest Settlements during 1893-94.

Name of Forest Division.	Name of Civil District or Territory.	Area already settled at commencement of the year.	AREAS FINALLY SETTLED DURING THE YEAR.						AREAS UNDERGOING SETTLEMENT.						REMARKS.
			Number and date of Government order according final sanction to the Settlement.	Name of Forest settled.	Area in Square Miles.	Expenditure incurred during the year on areas finally settled.		Entire Cost per Square Mile of Areas finally settled during the year.	At commencement of the year.		Taken in hand during the year.		Expenditure incurred during the year on Areas undergoing settlement.		
						In Forest Accounts.	In other Accounts.		Name of Tract.	Area in Square Miles.	Name of Tract.	Area in Square Miles.	In Forest Accounts.	In other Accounts.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reserved.		Sq. m.				Rs.	Rs.	Rs.					Rs.	Rs.	
East Thána	Thána	310	7806 24-10-93. 7962 30-10-93. 7956 30-10-93. 9070 2-12-93. 2683 17-4-94. 4360 17-5-94. 4609 28-5-94. 4610 28-5-94. 4619A. 28-5-94. 4567 24-5-94. 5269 20-6-94. 5312 21-6-94.	Bhiwndi, Kalyán, Sháhápur, Váda and Mokháda.	7¼	...	...	...	Murbád ... Sháhápur ...	25 44¼	...	...	1,475	11,038	
West Thána	Do.	166		Bassein, Dáhánu, Máhim and Sálsette.	76½	...	...	...	Dáhánu ...	109	Dáhánu.	109	5,551		
		Sq. m. ac.			Acres.										
Surat	Surat	65 519	8939 5-12-93. 5041 11-6-94	Mándvi	96	...	...	...	.....	...	...	...	...	...	
Panch Mahás	Panch Mahás ...	219	4907B 7-6-94. 4907C 7-6-94.	Dohad and Jhálod ...	114	...	...	...	.....	...	...	...	45	...	
	Total ...	M. a. 758 519	.....	.....	M. ac. 197 576	...	...	...	.....	178¼	...	109	7,071	11,038	

Protected Forest.																	
East Thána	Tháua...	17¼	6797 20-9-93. 7889 26-10-93. 8595A 24-11-93. 1227 15-2-94. 4255 14-5-94. 4358 17-5-94. 2284 29-3-94. 1892B 13-3-94.	Bhiwndi, Kalyán, Murbád, Shahápur and Váda.	¾	...	...	...	Murbád ... Shahápur ...	98 194¼	...	...	...	...
West Thána	Do.	142	4619C 28-5-94. 4567D 24-5-94. 9018 8-12-93.	Dáhánu, Máhim and Sálsette.	154¼	...	...	...	Dáhánu ...	109	Dáhánu.	109	...	...
	Total ...	159¼	.....	.....	155	...	...	...	.....	401¼	...	109	...	...

Bándra, 15th October 1894.

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

FORM No. 48.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Record of Demarcation and Maintenance of Boundaries during 1893-94.

No.	Division.	Length of Boundaries artificially demarcated during the year.	Length of previously existing Boundaries repaired.	Length of previously existing Boundaries not repaired.	Total length of artificially marked Boundaries at the close of the year.	Length of Boundaries not demarcated at the close of the year.	Length of natural Boundaries not requiring artificial marks.	Total length of Boundaries at the close of the year.	Expenditure on Demarcation during the year.		Remarks.
									On new Work.	On Repairs.	
	1	2	3	4	5	6	7	8	9	10	11
		Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Rs.	Rs.	
1	East Thána	10¼	5½	1,032¾	1,048½	77½	...	1,126	125	65	
2	West Thána	41½	1½	388½	431½	561	170	1,162½	276	23	
3	Surat	17¼	...	400¼	417½	300	...	717½	*1,906	...	Includes Rs. 1,333 on account of Dangs.
4	Panch Mahals	70½	...	405 9/10	476 2/5	263⅛	79	818 17/30	515	...	
	Total ...	139½	7	2,227 2/5	2,373 9/10	1,201⅜	249	3,824 17/30	2,822	88	

Bándra, 15th October 1894.

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

FORM No. 50.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Progress made in Working-Plans, 1893-94.

Division.	AREAS FOR WHICH WORKING-PLANS HAVE BEEN COMPLETED.		AREAS FOR WHICH WORKING-PLANS ARE BEING COMPILED.		Areas for which Working-Plans have still to be taken in hand.	Total Forest area, as in Form No. 46.	Entire cost per square mile, of Working-Plans completed.	REMARKS.
	At commencement of the year.	During the year.	At commencement of the year.	Taken in hand during the year.				
1	2	3	4	5	6	7	8	9
	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Sq. m.	Rs.	
East Thána	72	120	437	42	395	629*	†5,749	*These figures represent area of forests as scaled and, therefore, they will not compare with figures in Form No. 46. †As the charges are debited in lump, separate figures for each division are not available.
West Thána	.....	80	366	140	226	446*		
Surat	.....	.....	68·477	.....	68·477	68·477	.....	
Panch Mahálś	.....	.....	333·410	.....	333·410	333·410	.....	
Total ...	72	200	1,205·247	182	1,023·247	1,477·247	5,749	

Bándra, 15th October 1894.

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

FORM No. 51.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Communications and Buildings during 1893-94.

Division.	NEW WORK UNDERTAKEN DURING THE YEAR.						REPAIRS EXECUTED DURING THE YEAR.						REMARKS.
	Buildings.		Roads and Paths.			Total Expenditure on new work.	Buildings.		Roads and Paths.			Total Expenditure on Repairs.	
	Description of Building.	Expenditure incurred.	Road or Path and object of the same.	Length of Road or Path.	Expenditure incurred.		Nature of Repairs.	Expenditure incurred.	Nature of Repairs.	Length repaired.	Expenditure incurred.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Rs.		Miles.	Rs.	Rs.		Rs.		Miles.	Rs.	Rs.	
East Thána.	*Khardi Range.*												
	1 Cattle pound ...	16	.....	...	...	16	For thatching, &c., 22 Forest guards' huts and 1 hirda depôt.	69	.....	...	...	69	
	1 Forest guard's hut.	7	.....	...	...	7							
	Mokhada Range.						For repairing and thatching 9 Forest guards' huts and 2 hirda depôts.	32	.....	..	...	32	
	3 Cattle pounds ...	45	.....	...	...	45	For thatching, &c., 22 Forest guards' huts.	99	.....	...	...	99	
	Shâhâpur Range.						For repairing roof, &c., of Tânsa Forest bungalow and Forest guard's post.	302	.....	...	...	302	
	3 Cattle pounds ...	53	.....	...	...	53	For repairing 6 Forest guards' huts, 3 cattle pounds and 23 Forest guards' huts.	122	.....	...	...	122	
	Kalyân Range.						For thatching and repairing 9 Forest guards' huts.	27	.....	...	...	27	
	Bhiwndi Range.						For thatching and repairing 19 Forest guards' huts.	118	.....	...	...	118	
	1 Cattle pound ...	5	.....	...	...	5	For thatching and repairing 31 Forest guards' huts.	103	.....	...	..	103	
	Murbâd Range.												
	Vâda Range.												
	Total ...	126	.....	...	...	126		872	.....	...	...	872	
West Thâna.	*Bassein Range.*												
	1 Cattle pound ...	2	.....	...	...	2	For thatching, &c., 31 Forest guards' huts.	77	.....	...	...	109	
	Dâhânu Range.						For plastering, white washing, &c., of Parol bungalow.	32	.....				
	1 Cattle pound ...	8	.....	...	...	8	For thatching 22 Forest guards' huts.	55	.....	...	...	55	
	Mâhim Range.						For thatching 67 Forest guards' huts.	167	.....	...	...	167	
	4 Cattle pounds ...	74	.....	...	...	74	For thatching 18 Forest guards' huts.	45	.....	...	...	45	
	Sâlsette Range.						For thatching 29 Forest guards' huts.	68	.....	...	...	68	
	1 Cattle pound ...	34	.....	...	...	34							
	Umbargaon Range.												
	5 Cattle pounds ...	107	.....	...	...	107							
	Total ...	225	.....	...	...	225		444		...	...	444	
urat	*Mândvi Range.*												
	1 Forest depôt house at Usked Ramkund.	430	.....	...	...	430	Repairs to Mândvi Range Forest office.	213	Repairs to road from Usked Khurd to the bank of Tâpti.	2	8	226	
	Chikhli Range.						Turning tiles of Dadvada post.	2					
	1 Forest guard's post at Gandewa.	61	.....	...	...	61	Turning tiles of Târâpur post.	1					
	Dâng Range.						For thatching Khodamba post.	2					
	Reconstruction of Garvi bungalow.	258	Construction of road from Mahâl to Kasarpala.	5	722		Repairs to Pimpri bungalow.	4	Bridge and road repairs from Waghai to Garvi.	20	506	886	
							Repairs to Waghai bungalow.	19	Do. from Garvi to Pipladevi and Khuluta to Pipladevi.	4	37		
	Tiling the Sarowar, Pimpri and Garai bungalows.	879	Do. from Bhalkhet to Morupani.	5	101		Repairs to Waghai well.	5	Do. from Pipladevi to Dewariawan.	20	110		
	Completion of Maheskatri bungalow.	500	.....	...	...	2,571			Do. from Kinlipada to Bhalket.	10	108		
	Fencing to Waghai depôt compound.	57	.....	...	...				Do. from Chikhla to Dhongriamba.	9	51		
	Wooden curb well at Singana, &c.	38	.....	...	...				Do. from Meheskatri to Chalkdera.	7	46		
	Forest post at Devri,	6	.....	...	...								
	Do. at Bardipada.	10	.....	...	...								
							Balsâr Range.						
							Repairs to Vejalpur bungalow.	13	.....	...	...	13	
	Total ...	2,239	.....	...	823	3,063		259		...	866	1,125	

FORM No 51—*continued.*

Division.	New Work undertaken during the year.						Repairs executed during the year.						Remarks.
	Buildings.		Roads and Paths.			Total Expenditure on new work.	Buildings.		Roads and Paths.			Total Expenditure or repairs.	
	Description of Building.	Expenditure incurred.	Road or Path and object of the same.	Length of Road or Path.	Expenditure incurred.		Nature of Repairs.	Expenditure incurred.	Nature of Repairs.	Length repaired.	Expenditure incurred.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Rs.		Miles.	Rs.	Rs.		Rs.		Miles.	Rs.	Rs.	
Panch Mahals.	Extension of plinth in front of the bungalow at Godhra.	336	.....	...	...	336	For replacing bamboo walls of stables by bricks and concreting the floors.	250	.....	...	...	...	
	Connecting the two bungalows by a brick-path.	32	.....	...	...	32	Repairs to Forest post in Hálol Range.	22	.....	...	...	...	
	Construction of a well in the compound of Divisional Forest Officer's bungalow.	621	.....	...	...	621	For turning tiles of the Divisional Forest Officer's bungalow at Godhra and of the rest-house at Achala.	212	.....	...	...	484	
							For making two new doors in the bungalow, for whitewashing and other repairs to the Divisional Forest Officer's bungalow at Godhra.						
	Total ...	989	.....	...	...	989	.....	484	.....	...	...	484	
	Grand Total ...	3,579	.....	...	823	4,402	.....	2,059	.....	...	866	2,025	

R. C. WROUGHTON,

Bándra, 15th October 1894. Deputy Conservator of Forests, Northern Circle.

FORM No. 49.

FOREST DEPARTMENT, BOMBAY, NORTHERN CIRCLE.

Statement of Forest Areas Surveyed and under Survey during the year 1893-94.

Division.	AREAS SURVEYED AND UNDER SURVEY DURING THE YEAR.																								AREAS REMAINING TO BE TAKEN UNDER SURVEY.	TOTAL FOREST AREA AT END OF THE YEAR, AS PER FORM No. 46.	COST.			REMARKS.
	Special surveys—Maps on 4" scale or over, by Survey of India Department or Forest Survey Branch.								Ordinary, included in District Surveys.								Chain and Compass or other Surveys by Local Officers.												
	With Interior Details.					Boundary Surveys.			With Interior Details.					Boundary Surveys.			With Interior Details.					Boundary Surveys.							
	With Details of growing stock.		Without Details of growing stock.		Total Cost.	Previous.	Of the year.	Total Cost.	With Details of growing stock.		Without Details of growing stock.		Total Cost.	Previous.	Of the year.	Total Cost.	4 inch or over.		Under 4-inch.		Total Cost.	Previous.	Of the year.	Total Cost.			Previous.	Of the year.	Entire cost of all Surveys to end of the year.	
	Previous.	Of the year.	Previous.	Of the year.					Previous.	Of the year.	Previous.	Of the year.					Previous.	Of the year.	Previous.	Of the year.										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
				Sq. ms.	Rs.																								
East Thána 8"—Detail	...	...	...	13	4,092	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
West Thána 8"—Detail	...	...	...	38	7,635	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Total ...	...	...	...	51	11,727	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	

R. C. WROUGHTON,
Deputy Conservator of Forests, Northern Circle.

Bándra, 15th October 1894.

STATEMENT FORM No. 52.